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ABSTRACT

Educational change is presented by narrating one school district's experience in developing and implementing changes in response to court orders to racially desegregate. With the assistance of Research for Better Schools, in a "change agent" relationship, school building grade-level organization was changed to early childhood through grade 2, grades 3-5, grades 6-8, grades 9-10, and grades 11-12, each grouped separately in a building. The administrative organization was changed to a superintendency team, and a comprehensive planning system was installed. The change process is presented historically as moving from the schoolmaster mode to the specialist teaching in a child-centered organizational mode. E.S.E.A., Title IV is cited as a major force for educational change through initiation of research and development centers. To accomplish planned educational change, it is said that an outside change agent is required and that administrators must be trained to administer the change process. (DW)

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Change Capability in the School District

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Foreword

Research for Better Schools, Inc. (RBS) has been a leading proponent of educational change by offering its expertise to school districts as they confront some of the crucial and very fundamental issues underlying change.

Franklinsburg was one such school district. With RBS' assistance, Franklinsburg successfully accomplished, in three years, a total administrative reorganization that made it possible to provide quality education to all its pupils. However, that in this book the authors have been able to intertwine the Franklinsburg experience with a historical treatment of educational change makes this story much more than a case study of one school district. Allow me to briefly introduce its authors.

Leon Ovsiew, Professor of Educational Administration at Temple University is a frequent consultant to school districts as they deal with change. Also, he has ably served RBS on numerous occasions when his special knowledge and perspective was essential to the laboratory's work.

Sanford Temkin, Director of Development in the Administering for Change program at RBS, is widely experienced in the development of training materials for teachers and administrators. Before coming to RBS, Dr. Temkin was a professor of statistics at Temple University. It was he and Dr. Ovsiew who were primarily responsible for formulating the Franklinsburg strategy recounted here.

Louis M. Maguire, currently Director of the Career Education Program at RBS, was the key individual who represented RBS in Franklinsburg. It was under his initiative and direction that Franklinsburg managed its change. Needless to say, it was also Dr. Maguire who shouldered the day-to-day burdens.

It give me great pleasure to allow their story to be told.

Robert G. Scanlon
Executive Director
Research for Better Schools, Inc.

Introduction

Schools have changed through the years, but schools are everywhere accused of lagging behind the reasonable aspirations of their clients and patrons. Not even the unhappy fact that all our public institutions suffer from the same dissatisfactions and disillusionments alleviates the frustrations of school administrators who must struggle with burdens of these accusations.

For more than a decade now "innovation" and "change" have been among the most commonly used words in education. Few educational administrators deny the validity of the concern for educational change, for more than most they know how far short of legitimate expectations the schools are able to achieve. But far better than most, school administrators also know the irresistible demands of continuity and stability of the school organization and how these consume time, effort and resources.

This book tries to illuminate in two ways the complex manifestations of what is all too easily called change. One way is by narrating the story of a real school district's experience with fundamental changes. Though not a case study, the narrative, nevertheless, is an accurate (but not exhaustively detailed) account of Franklinsburg's experience. We have chosen the name Franklinsburg to protect those whose courage in the face of uncertainty could never be fully understood unless you stood beside them. Franklinsburg's experience is, we believe, quite widely generalizable, although it must be admitted that not enough record exists to be certain of that. In some ways, notably the active presence of Research for Better Schools, Inc. (RBS), the Franklinsburg experience is not every district's experience. Still, the notion of "change agent" in all its subtle intricacies resides in the Franklinsburg-RBS relationship. Mostly, for us it seems that the incapability to cope with change itself, the principal insight we find in the more than two years of work with Franklinsburg, is widely characteristic of schools for reasons which seem, at least in part, apparent. Those reasons, we believe, go far beyond anything so superficial as blaming school teachers and administrators.

The other way in which the book tries to provide some useful insight about the phenomena of educational change is by historical and conceptual essay. The premise for doing so is that change is (and has always been) a major element of administrative theory and practice which has become all the more profound because there has lately been accurring a change in the process of educational change.

Trying to do both narrative and essay in the same book has posed a few difficulties, chiefly those of presenting an unusual format for the reader. Thus, the Franklinsburg narrative is read in the first four odd-numbered chapters and the essay on educational change in the other five chapters. There is no deliberate one-to-one correspondence intended in the alternating chapters, but the format will have failed in its design if the reader finds that the narrative and the essay do not help to clarify each other. Especially does the alternative chapter design hope to explain the conceptual and mission bases of such research and development organizations as RBS, organizations which we believe have potential for serving the educational sector beyond anything yet claimed.

Finally, there is a kind of "warts and all" openness about both Franklinsburg and RBS in these following pages, and though there are obvious disinclinations in such a posture, there is no way to avoid doing so if the account is to be submitted for serious consideration. Openness also bares the frailties of those who participated and toiled to make Franklinsburg a better place. Today there are few who would dispute that Franklinsburg is a better place.

Acknowledgments

There are many organizations and persons whom the authors feel a need to acknowledge. Foremost are those in Franklinsburg whose courage in confronting the rigors of change confirms the willingness of educators to improve what they do.

James W. Becker, then the Executive Director of RBS, is commended for his willingness to venture forth into the social realities of massive school district change. He knew that the ivory tower an R&D organization could build around itself reduces substantially the opportunities to learn and have long range impact.

Robert G. Sc..lon, now the Executive Director of RBS, is commended for his willingness to share our experience with educators everywhere.

There are others whose contributions are worthy of individual acknowledgment, Frederick E. Tanger, then Director of the Administering for Change Program (ACP); George Baker T..ompson of ACP; Richard Cahn, who compiled a 400-page confidential account from the more than 10,000 pages of documentation; Glen Heathers who provided much useful criticism in the final stages of preparing the manuscript; and Ullik Rouk who assisted in editing the final version.

We also acknowledge the patient and persistent contributions of the ACP staff who worked with Franklinsburg.

Lastly, gratitude is due to Loretta Margulies and Anna Fuselli for their patience and diligence in typing the manuscript.

Preface

Like many other school districts in the United States, in 1970, Franklinsburg was faced with a Supreme Court decision that called for immediate integration of its schools. The plan ultimately selected in Franklinsburg and its implementation could be an example for any school district considering change and quality education for all of its pupils.

In the first half of the 1800's, Franklinsburg was a typical early American trading post located approximately 150 miles inland. Its waterway, however, quickly brought an influx of business and industry to the area. Then, with the coming of the railroad, its size and importance increased even more. Franklinsburg soon became one of the country's leading transportation centers.

A century ago, Franklinsburg's county public school system changed to a city system. An enlightened leadership assumed the responsibility for examining the best known programs in education, implementing them into the public school system, generally prior to their use in other districts, and in most cases, prior to their adoption by State Department of Education mandates.

During the late thirties and early forties, an improved standard of living, coupled with the deterioration of inner-city housing, brought about the development of public housing units. Today, approximately twenty-five percent of the pupils attending city schools live in public housing. Although Franklinsburg has aged a great deal, floods, politics, inflation and other economic issues discouraged rebuilding. So, another twenty-five percent of the city population continues to live in culturally-deprived neighborhoods with sub-standard housing. Forty percent of the city population are middle-class families living in comfortable homes and ten percent live in restricted residential parks and developments where about half of the children attend private schools.

Housing in Franklinsburg, as in other cities, tends to identify with economics and racial and ethnic characteristics. Therefore, no one neighborhood represents a cross-section of the city population. Prior to 1940, neighborhood elementary schools were either all black or all

white; few were mixed. Token adjustments of pupil assignments were made following World War II when "Equality of Opportunity" became a by-word in educational circles, and educators began to consider pupil home life and community experience basic to educational success.

The Supreme Court decisions on integration forced the State Legislature to delegate to the local school districts the responsibility for integrating the schools according to a rigid time schedule. This posed a very real problem for Franklinsburg. The district pupil population was forty percent black; however, five of the elementary schools serving a contiguous area had a student body where ninety-nine percent of the population was black.

The Human Relations Commission held several meetings with representatives from seventeen school districts to establish integration guidelines and target dates. Franklinsburg's administrators and Board of Education proceeded to develop their own plan for change. The year 1969-1970 was one of decision and direction. The administration developed fourteen possible plans. These were then narrowed down to two, and one was finally chosen for implementation. This plan was then placed on the operating table with Research for Better Schools in Philadelphia doing the surgery. Also, meetings with the community, special interest groups, and the entire school staff provided a clearinghouse for change and enabled various groups to actively participate in the project and voice their opinions and concerns. The year of rehabilitation and recovery was long, but in the end, Franklinsburg's educational program was redirected and reformed.

Court injunction procedures and threatened organized boycotts were all a part of the getting ready process. With the on-site participation by staff from Research for Better Schools, the assistance of the mayor, and consultations with specialists of the State Department of Public Instruction, "D-Day" arrived.

Franklinsburg's plan provided a new building organization that called for pupils to attend the building specifically designed for their instructional program: early childhood, kindergarten through grade 2; elementary grades 3 through 5; middle school grades 6 through 8; two comprehensive high schools with grades 9 through 12. Two years later the high school division was changed so that grades 9 and 10 were on one campus and grades 11 and 12 on the other. This plan has proven to be the only adjustment necessary to provide the most effective and ideal organizational pattern for our schools.

The summer of 1970 was "long and hot." A total physical change was necessary: buildings were equipped with the designated level of instructional program; equipment and supplies were moved; and a transportation schedule, equipment and bus operators were organized. Administrators were reassigned and given intensive in-service programs to make the adjustment as foolproof as possible. The personnel

department integrated the total district staff so that teachers' choices as to where they would teach could be honored as much as possible. The end result was schools that had faculties of equal experience, sex, race, and other characteristics. No one school had a staff advantage over another. Pupil assignment was accomplished in a similar manner. Residence and neighborhood no longer determined building assignment.

Public meetings, parent meetings, news releases, radio and television programs and printed materials were provided in abundance. Not only were the school district pupils and their parents informed, but for a radius of twenty miles around the city, everyone knew of and talked about our program. The usual public opinions were issued. The majority were enthused about the change because they were an active part of what we were doing. Of course, there was still a "show me" group and a small but persistent group of interruptionists.

A look back to see where we have come from shows many positive signs. The total program is moving full speed ahead with very rewarding educational growth patterns emerging. Many extra educational advantages have been made a part of our program that I am sure could not have happened if we had not made the change. All credit must go to those who represented Research for Better Schools during the planning stage and then remained on-site to assist the administrators and staff to properly interpret and put into practice the operating program.

Many national and state evaluators have visited Franklinsburg, and all have given the program a very positive rating. Our own evaluations and surveys have measured impressions and attitudes of pupils, teachers, administrators, and a broad segment of the community, business, industry, and other related groups. All show that there is no need to turn back or no gray areas of concern. Only four short school terms have elapsed, but already, Franklinsburg has made it.

Superintendent,
Franklinsburg Schools

chapter one:

Desegregation: the impetus for change

1.

On February 2, 1968 the Human Relations Commission and the Education Commissioner of an industrialized eastern state sent the following directive to the Board of Education of Franklinsburg and to sixteen other of the state's larger school districts:

> The Commission in fulfilling the mandate conferred on it by the court is hereby requiring that you submit plans to eliminate the racial imbalance and indicate steps you have begun to take to implement the plan together with a timetable. The Commission respectfully requests that you submit this plan as early as possible, but no later then July 1, 1968.

In the seventeen districts consternation was followed by confusion, for it was not until March 29th that the Commission published the "desegregation guidelines," which were all that could be read as the criteria for the plans which the Commission wanted the districts to make.

2.

Franklinsburg, a city of some 80,000, of whom about 20,000 were black, was in some ways less segregated than many northern and eastern cities. True, traditional patterns of neighborhood schools and housing had created and maintained de facto school segregation in Franklinsburg just as they had, for example, in Newark, Philadelphia and Detroit. But whatever the degree, the Commission was only doing its duty. And there was no way to ignore the fact that in the last five years the black student population had increased from 39 percent to 51 percent.

In common with their counterparts in other northern and eastern cities, Franklinsburg's school officials had reason to believe that the Court's decision in Brown vs. Board of Education, though it had declared only de jure school desegregation unconstitutional, would affect them, sometime. But that knowledge was not enough to get them to do anything about segregation, or even to make some preliminary

plans for what could be done when an order came. February 1968 found the Franklinsburg schools no readier to face the implications of *Brown* than they had been in 1954, even though, as elsewhere, racial tensions were ripping at the substance of the schools and the city. In that month, disorders in the city's high schools required police intervention, classes were cancelled for a time and black students presented demands for "equality" to the Board of Education.

Worse, the lid had been blown off the container in which black-white hostility had for so long been kept quiet under pressure. Ghetto conditions were being discussed now on television, "mini-town meetings" provided a forum for increasingly bitter charges and countercharges. Expressions of deep-lying frustrations flooded through the city, flowing through communications channels newly opened. Many long-time citizens, both white and black, were truly astonished that what had seemed to be peace and amity between the races had really been bitterness and hate repressed by social sanctions. Shame and regret were mixed with the fear and violence in Franklinsburg in 1968.

By May, when the Human Relations Commission held public hearings on "the racial situation" in the schools, the findings (that there was racial tension, that the schools had not done enough to integrate their staff and provide curriculum equal to the needs of black students, that a "gap in communication and understanding" continued to exist between the black and white communities) were no longer so shocking. Still, the Commission recommendations were hard to acknowledge in their entirety.

In June, the Franklinsburg Board of Education published its own "Report on Racial Imbalance." It took the position that de facto segregation was a part of urban life expressed in housing patterns which, in turn, determined school attendance patterns. And, of course, the board could do nothing about housing patterns. But the board declared its intentions to do what it could about racial imbalance and racial equity. A Lay Advisory Committee would be formed, Negro history would be programmed, teachers would be trained to eschew the stereotyping, scapegoating, racist references and other presumably largely unconscious behaviors which the Commission's investigation had alleged. Also some students would be reassigned to achieve better racial balance.

To which the Commission responded, as follows:

> This letter is to inform you that the Human Relations Commission at its meeting of July 29 officially voted disapproval of the school desegregation plan submitted by your school district . . . The Commission further voted that you be directed to submit a supplementary plan, together with a timetable for implementation, by November 1, 1968 that will eliminate racial imbalance in all the schools where it exists.

Anyone who was paying attention during those days can guess what happened next: delay, trouble, more delay, more trouble. A series of postponements extended the Commission's November 1968 deadline to the next June. The postponements were granted, in part, because racial disturbances which plumbed new depths of frustration and despair had escalated violence to the point of requiring state police reinforcements.

As might also be guessed, the school superintendent had resigned in the midst of the trouble, and a new one was appointed in June of 1968. The whole sad, exacerbated conflict was in the late summer of 1969 – 17 months after the Commission's order – at the point of hopeless impasse.

But desegregation plans and racial violence were only the beginnings. Problems rarely arise singly; not only does each problem spawn its own complications, but a problem raised to the level of virulence often pulls the covers of inattention off other distressful inadequacies and malfunctions in an organization. In Franklinsburg, desegregation conflicts revealed a school organization in great disarray.

3.

The school organizations get into trouble from time to time no one doubts, but at first there was little disposition in Franklinsburg to hold the schools accountable for any part of the cause of the 1968-69 troubles; the trouble seemed to be happening *to* the schools. After a while that perception began to change. For one thing, people characteristically expect the schools to be able to respond to social needs; it was, after all, an organization whose very essence was supposed to be the effective use of intelligence and judgment. Few citizens were unreasonable enough to believe that the schools could solve so mean a social problem as racial inequality, but a practicable response seemed a not unreasonable expectation.[1]

The feeling was growing in Franklinsburg that coping with the problem of racial inequality was, certainly in part, a legitimate public school responsibility. For years educators had been more than willing to accept society's assigning to the schools all sorts of similar tasks. Indeed, educators always had made a major claim of being society's indispensable agent in inculcating the principal elements of American ideology: respect for law, free enterprise, equality of opportunity, faith in democratic processes and institutions, brotherhood. In short, teaching all the acculturating values, except perhaps religion, which made the American ethos was accepted as the school's work. Why, then, should the racial problem be different?

The ready answer given was that racial equality was not really an education problem; the schools were only an arena chosen by the Court

for making a pervasive social problem overt. But the answer was not very convincing. Undeniably, the hard fact was that the capacity of the schools to adapt was being legitimately tested and, so far, found wanting. The public schools were not even so special; a variety of other American institutions were no less tested by the Civil Rights Act of 1964.

As a matter of fact, the schools had long since given up any rights they might have had to insist upon non-involvement in all but educational missions. Like other organizations, the public school enterprise had grown in size and complexity. By the sixties, educators had long since established the principle that satisfying social needs well beyond the 3Rs was wholly appropriate to the school's function. So it was that even though educators such as Jesse Neulen, George Counts and Harold Rugg had often been castigated in the thirties and forties for daring to suggest that the public schools ought to be trying to "change the social order," the Supreme Court and President Johnson were in the sixties widely cheered for demanding that the schools do no less.

4.

So, a year or more after the demand was first made that the Franklinsburg schools help make peace between the races through greater justice and equity in their schooling, few appeared to believe that the schools could not somehow do it.[2] If the school officials struggled with the Human Relations Commission about housing patterns and the like, most citizens seemed to believe it was only to clarify the dimensions of the responsibility, not to gainsay it.

But assumptions about the rightness of the principle and the ability of the schools to act on it were both fraught with great risk. Justice and equality for blacks seemed to necessitate the threat of loss and discomfort for whites and educational change under the gun of a state bureau's mandate was, in fact, proving to be beyond the school organization's capabilities. Conflict over principle greatly decreased the *willingness* of school officials to expose their organization to the risks of change, no doubt, but the *inability* of the school organization to make prompt, sound decisions about change was independently true.

By August 1969 it had become evident to Franklinsburg school officials that they needed help. They had to respond to the order, which they could not, and that was shocking enough, but it was clear and getting clearer that the longer their incapacity to respond lasted, the less were they able to maintain the regular ongoing operations of the school organization. That, of course, was a potential disaster.

In an image-conscious culture the first outreach by the school board had been to the spear and shield of public relations, predictably, as

though to pretend the trouble were merely external and symptomatic. By the late summer of 1969 it became obvious that public relations was not enough, that more substantive aid was needed. In an unorthodox move, the board turned to Research for Better Schools, Incorporated, an educational research laboratory funded by Title IV of the Elementary and Secondary Education Act (ESEA) of 1965.

Strictly speaking, consulting with school districts in trouble was not part of RBS' business. Its function was research and development; its mission was building the prototypes of new educational products. But research and development missions had already led RBS into the thickets of the "field." In Wilkes-Barre, RBS had conceptualized a "school for the year 2000" incorporating the best of the newest educational ideas available or in development. That experience helped Wilkes-Barre, but it also helped RBS with its work in developing Individually Prescribed Instruction (IPI), RBS' major product, Also, at the request of the U.S. Office of Education and of school officials in Newark, New Jersey, RBS had studied that city's afflicted school organization in an effort to diagnose its ills and prescribe remedies. Again, its altruism was tempered by how much it learned for its emerging developmental program in educational change.

In Franklinsburg, RBS was willing to consider consultation, but its *quid pro quo* – a matter really of its integrity of function – was that RBS had to be certain it would learn at least as much as it would teach.

Of course, RBS did not possess patent remedies for malfunctioning school organizations. What the Franklinsburg board had come correctly to believe was that there were no across-the-counter medicines for its problems; it could be suffering from a malady which had not yet even been identified and described. And as long as the Franklinsburg school officials felt that to be the state of things, RBS could come without pretence into the situation as students interested in the etiology Franklinsburg was exhibiting as well as consultants to an organization which immediately needed practical help. That seemed to be the way things were, but even so there were impediments to an agreement.

5.

In July of 1969 the Human Relations Commission had given its approval to the plan the new superintendent and the board had forwarded, even though it was incomplete and not altogether acceptable; it lacked both implementation procedures and a timetable. In effect, HRC was being amenable to a compromise. In consideration of a pledge of desegregation of pupils and an integration of professional and non-professional workers, the Commission was willing to wait and watch for proofs, for a time.

Meetings between RBS and Franklinsburg school officials were held periodically over the next several months. RBS refused to involve itself unless it could do so on its own terms, which included a full-scale study of the Franklinsburg school organization over an extended period. Franklinsburg's officials, hoping that their problems were really not so severe or deep-lying and feeling the pressure of events, wanted something less exhaustive and thorough-going. A workable desegregation plan and some cosmetics for administration would have satisfied the board. RBS insisted that the health (the ability to function) of the whole organization was the greatest concern and that no real good could be done unless the board recognized that as RBS did. At length, the board and the superintendent agreed that the school organization's ability to handle the complexities of educational change and improvement was the primary need to be faced. It was an admission hard to make.

By mid-October (1969) the consultant venture was ready to begin, though not everyone was happy about the arrangement. As one of the newspapers editorialized: "Franklinsburg has a bad case of consultant syndrome." The editor went on to warn, "The school board is being unrealistic if it thinks that by paying a consultant to do the dirty work it will escape the wrath of angry mothers and fathers." He was, of course, talking about busing.[3]

6.

Giving over the putative crisis, conforming with the desegregation order, to the Center for Urban Education (CUE), a New York-based Title IV (ESEA) education laboratory which had made desegregation one of its specialties and had worked on it in several school districts,[4] RBS set out to get the information it needed to work at its tasks. Preliminary information-gathering had already revealed that several afflictions that commonly plague school organizations were debilitating the Franklinsburg school district.

Dual control was entrenched; not only was there an operational division between "education" and "business," but the man who was secretary of the school board and its business manager had such firm control over his areas that the superintendent's participation in budget-making was barely pro forma. Indeed, board meetings had two agenda.

A communication gap was everywhere apparent. Where powers are separated by dual control, it is only reasonable to keep communication between the two executives at minimal levels, if only as a way of safeguarding prerogatives. But the disability went beyond the separation between "education" and "business." The "education" people were separated from each other too. The superintendent seemed to be

living on a floating island, unbridged except as he was able to throw out a temporary line from time to time. For his understanding of what was going on in the schools he had to be satisfied with such one-to-one "contacts" as he could make. He had no regular and dependable reports from others. Nor was it surprising in an organization where the interchange of information was so attenuated that middle-echelon administrators should be trying to solve the wrong problems. Despite the proofs of eighteen months, principals, when asked by RBS, identified the "real" problems of the schools as "maintenance of plant," "busing," and "discipline." None so much as mentioned the organization's incapacity to develop and implement ways of coping with long-standing problems. No one in the middle echelons seemed to grasp the fact that the school system did not know how to change.

RBS initiated explorations into the several layers of the school organization, striving to build a base of dependable information, using questionnaires and interviews. Having agreed to stay with Franklinsburg's problems, RBS' need to know as much as it could as quickly as possible was intense. But it was also a dangerous venture.

As RBS' incursions into the substrata went deeper, the resistance grew greater. More than 25 percent of the administrators would not for weeks return the "Administrators' Confidential Questionnaire," and the teachers, through their association, tried for weeks to insist on having "control" of the data from the teachers' questionnaire, by which they meant not only physical possession, but final say on analyses and reports which used the data. In a malfunctioning organization, any intrusion arouses suspicion and fear.

Negotiations and patience did at length reward RBS with a mammoth collection of data about the Franklinsburg school system. Still, in summary, the most significant findings seemed to be that old problems, problems such as are commonly found in school organizations, were the ones most bothering Franklinsburg:

> Job descriptions did not exist so that such definitions as operated were self-made. As a consequence, role-expectations and working relationships were confused and conflicting.
>
> As if in protection against the rest of the organization, the people in each unit component of the organization huddled together, each unit doing as it saw fit and keeping its relationships to other component units as tenuous as possible, thus lessening the threats others posed.
>
> Functional analysis of organization roles was wholly lacking so that the organizational structure was, operationally, without conceptual basis. In fact, the "paper" structure was customarily disregarded in practice. In consequence, lines of responsibility and accountability were murky and discontinuous. The functional interrelationships between and among people were not only

> unclear and often disregarded, but they had long since escaped rational understanding by the administrators who were responsible for the work of the organization.

Taken together, it was all too apparent that the school system's incapacity for mounting and carrying through effective change activity was in part a lack of the power of organization. The entire strength of the organization's administration was strained to the uttermost in trying to deal with the ordinary disturbances of routine. The ordinary pressures, conflicts, and problems which day to day arise in all organizations caused Franklinsburg more trouble than it could handle. All its energies were being spent in keeping the organization stable, and these were not enough.

So extraordinary a disturbance to the homeostasis of the school system as the order to desegregate overstressed it to the point where it could not bring together the means of making an organizational response. It could not change, because it had no energies to allocate to ventures beyond its daily maintenance needs. Even more to the point, if necessary energies were available, it did not have the capability of planning and implementing change.

But what was puzzling about all these findings was that they seemed in some ways too ordinary to be explanatory of Franklinsburg's troubles. After all, administrators everywhere were, it was claimed, wary of new ideas. What, if anything, was so special in Franklinsburg?

The question never did get an altogether satisfactory answer, for RBS did not study enough school organizations to allow a solid-data-based judgment on the matter. But the impressionistic conviction was that the right stimulus, a crucial need to make a big enough change, would likely produce the same trauma as Franklinsburg's in scores, perhaps hundreds, of other school systems. RBS hypothesized that the same conditions were present in many school systems, but, for the time being, were disguised and hidden from public view.

NOTES

1. These are impressions of course, since no polling was done. They are, however, strongly corroborated observations from long-time residents.

2. This is not to suggest that there was widespread belief that the schools *should* desegregate. What was true was that many who opposed desegregation had their fears raised by believing that the schools could desegregate. Those who thought they should also thought they could, by and large.

3. Both the city's newspapers were unhappy with the school board for reasons they took every opportunity to air. So far as can be ascertained, the newspapers had no criticism of RBS, but resented, at first, that the board had found yet another consultant to be necessary.

4. RBS knew that its expertise in the specifics of desegregation was not great. Although CUE's credentials were quite good, the Franklinsburg board insisted that RBS remain the prime contractor. RBS, then, made an agreement between itself and CUE on behalf of Franklinsburg. This relationship did not work well. For CUE to engineer an implementable desegregation plan it had to talk with Franklinsburg staff but did not see a need to communicate with RBS staff.

chapter two:

A change in the process of change

1.

By 1968 scholarly interest in the phenomena of educational change had been revived. Until Paul R. Mort, the process of educational change had had little attention from scholars, probably because it seemed so readily understood: as good ideas came along, schools adopted them, and in so doing, changed. In fact, even Mort did not really think it necessary to study all of the elements of the process of change. In his *American Schools in Transition*[1] he concentrated on studying dissemination and diffusion. Invention and development, the other elements of the process,[2] he regarded simply as the obvious manifestations of resourceful, creative people finding solutions to their problems.

That change is inevitable in dynamic cultures is hardly a new idea; two and a half millenia ago Heraclitus said, "It is not possible to step twice in the same river," and "Nothing endures but change." What Mort especially noted about educational change was that its spread in the schools was slower than the increase in the supply of new ideas. Somehow the flow of the process – the river into which one never stepped twice – turned sluggish along the way, even though the headwaters seemed to be bubbling.

His study of school "adaptability"[3] in Pennsylvania in the late thirties confirmed his insight: the rate of adoption – diffusion – was slowed by a number of factors, prominent among which was the lack of sufficient reliable information about new educational ideas. Dissemination was poor.

American Schools in Transition uses three words very frequently: *invention, experimentation* and *adaptability*. What emerges from the study is a picture of a process of education change in which creative problem solutions are generated in great profusion as ideas, most are not really sufficient to the task ("fits and starts" Mort called these failed ones), but one is destined ultimately to be widely adopted: the invention. Then a few "pilot" districts, those, typically, most motivated and wealthy enough to strive for excellence, try out the "destined" idea

and find it good. Slowly, then, over a period of fifteen years, the experimentation phase (early diffusion) continues, during which about three percent of districts adopt the invention. Then, the idea of having been found to be good by the experimenting districts, other districts more rapidly adopt the new idea as practice. Over the next thirty-five years, the "destined" invention becomes standard practice.

But the change process goes so slowly among school districts that the late adopters ("laggards," Mort called them) are found to be adopting inventions the early adopters are already discarding in favor of even newer ideas. It was this picture of the adaptability of school districts that was called "the fifty-year lag." It seemed clear to Mort, and to a succeeding generation of students, that the fault was in the capacity of school districts to move rapidly enough, not in the lack of new ideas for change.[4]

The fact that Mort's analysis was a partial truth long delayed the realization that it was over-simplification. As is often the case, the over-simplified partial truth satisfied well enough to cut off the search for other explanations. So right did Mort's picture of school system behavior in the presence of new ideas seem, so natural did the rationality of stability and risk-avoidance of administrators' practice appear, so obvious was it that communication was a pervasive problem, that the analysis quickly became accepted as gospel.

Since the change process was really so simple, then even so prudent a scholar as Griffiths could be comfortable as late as 1959 in explaining educational changes as "creative decisions":

> Creative decisions originate within the person of the administrator.
>
> The creative decision-maker makes a decision which changes the direction of the activity of an organization.[5]

2.

Paul Mort and his students were aware of impediments to educational change besides dissemination (communication) difficulties among school districts. They knew how great were the risks of trying unproved ideas, they deeply understood how vital money was to free those who wished to attempt new ventures, they could readily chart how important public support was to school officials who wished to innovate. All of which persuaded Mort and his students that those districts which did defy the odds were worthy of being called "pioneers", "pilots" and "lighthouses"; they led so that other might follow.

His view of the importance of the pilot district dictated some aspects of his conceptualization of school finance, especially his belief

in state subsidy funds to wealthy districts as the means of enabling them as pilots to continue their leadership role. He also saw the necessity of getting school officials from neighboring districts together in a variety of ways, ("pooling and sharing") in part to aid the dissemination of ideas, but also to raise the level of courage to innovate by moral support.

In the fifties and sixties the study of educational change was taken up with great vigor by a new generation of scholars who, in tune with the times, viewed school organizations primarily in human relations terms. They did not really quarrel with Mort's description of the realities, but they offered new analyses of the reasons for the slowness of change, new explanations which identified the attitudes and behaviors of the people in the organization as the barriers to change. As they saw the schools, reluctance to risk status and vested interests, thinking too little of the group's and the organization's interests, inability to work out new responses to problems because (to over-simplify just a little) people did not relate well enough to each other and to the organization, they said, were the main barriers to change.

New diagnoses require new remedies, of course, and Mort's old remedies – better dissemination, more money and increased public understanding of education – were no longer so apt, though still of some use. In their place, "planned change," "leadership" and "change agent" became the new vocabulary of the recommended therapy for the malady of the slow pace of educational change.

Like Mort and his students, the human relationists added to the general understanding of a process that was coming increasingly to be regarded as a much more complex matter than had been believed. If nothing else, the human relationists brought back a reasonable consideration of people in the mix, along with Mort's concern for abstractions called school districts. But before the ink had fairly dried on their books and articles, a new event was making the insights of the human relationists obsolescent.

3.

The fact that elementary and secondary education in the United States has been experiencing its most profound change during the last fifteen years has been all but obscured from general notice by more dramatic matters: the Vietnam War, the civil rights struggle, the explosion of student militancy in the universities, the drug affliction, Watergate, the bitter dissatisfaction of the public with most public institutions. Besides, this current change is, by its nature, a more slowly developing event. Its greatest effects are still to come.

As yet, the change has no agreed-upon name, but its essence is the conversion from ad hoc problem-solving invention and experimentation

to research and development as the core strategy for creating the means of improving educational practice. The "curriculum revolution" is a part of this change and so are the (ESEA) Title IV research centers and educational research laboratories. *What has been happening is a revolutionary change in the process of educational change.*[6]

The analyses of Paul Mort and the human relationists – alone or together – are no longer really pertinent in understanding the process of educational change, because the process is now different from the one they studied, even though some of the elements appear to be similar. To Mort the notable variables of the process were dissemination and diffusion. The human relationists were (and seemingly still are) almost altogether concerned with microanalysis of the adoption phase. When the change process strategy was ad hoc problem-solving, these approaches were both appropriate and valuable, though each was incomplete.

For Mort, it was pointless to study the invention phase of the change process; it was a human behavior that was well understood. People faced with problems solve or resolve them by inventing ideas. Development was not really an identifiable stage in the ad hoc process Mort studied; if there was development at all, it was only an aspect of the stage Mort called experimentation. What happened, Mort observed, was that as an invention was adopted, a certain amount of adapting occurred. Indeed, inventions were always offered with the understanding that the "unique" or at least special conditions of each district would require some tailoring to fit.[7]

The human relationists were not concerned with invention or development either; they assumed (as Mort had shown) the existence of better educational ideas than some schools were using. As they looked for the reasons behind the slow pace of educational change they found them in the adoption phase. People in the schools, for a variety of causes, defended against change. Thus, if the change process were to be accelerated, the way people behaved in the presence of change ideas had to be changed first.

The "curriculum revolution" which began in the mid-fifties started, however, from a wholly different premise. Quite simply, there were some people who examined the curricula the schools were using, found them to be unsatisfactory, and set themselves the responsibility for producing better ones. They did not theorize about educational change, but operationally they were implying that the slowness of change – in curriculum at least – might be accounted for by the lack of alternatives of high enough quality to make the rigors of change worthwhile to the schools.

There are still those who argue about how good the products of the curriculum revolution are, and some who see dangers in the schools using "packaged" rather than "home-made" curricula. The arguments

and viewing-with-alarm were probably inevitable, and perhaps even useful. But it requires no end to the arguments and trepidations to draw some conclusions about the event.

Whatever else obsolescent the slowness in educational change allowed to survive, nothing in the schools was in poorer health than curricular programming in the 1950's.

By the 1950's curriculum-making had long been settled in as a cottage industry. Each district maintained its own curriculum-making apparatus which consisted, typically, of a number of committees of teachers in various combinations. They were guided, it was supposed, by periodically appointed prestigious national commissions which enunciated "guidelines" and "principles" of curriculum construction and sometimes by consultant professors. That few teachers were often any more learned in subject matter than an undergraduate major can achieve or more skilled in curriculum development practice than an undergraduate survey course conferred meant that curriculum planning was largely a cottage industry worked at by quasi-craftsmen.

Blame is, of course, not the point. Lacking an alternative and lacking the resources to do better, school districts simply did what they could. And if they defended their practice with references to "democracy" and "local needs", it was rationalization easy to credit. The teachers who were expected to carry the curriculum-making load in their spare time did what any beleaguered committees of sensible people would have done in such a situation; they borrowed from each other, using scissors and paste to fit each other's curricula between new covers. Or, they simply kept using the textbook as a curriculum guide.

In a century when knowledge was "exploding" the schools were finding themselves unable to keep their curricula current, relevent, or, indeed, intellectually honest.

When better curricula were produced by the new curriculum makers, schools adopted them at a rate more rapid than had ever before characterized school district behavior. Not only was the rate more rapid, but the profile Mort had drawn – wealthy pilot districts leading the others – seemed no longer to be true. Instead, the new curricula were diffusing according to patterns not yet charted, contrary to any predictions that might have been made by Mort, by the human relationists, or, in fact, by anyone who had a traditionalist's respect for the mythology which had grown up around the local home rule principle.

One piece of that mythology was that home rule was not only a vital element safeguarding the political integrity of the schools against the possibility of a central government's political tyranny, but educationally necessary as well. The myth of educational necessity held that children's needs differed uniquely by geography.

In curriculum matters American school districts had worked

themselves into a position of near impotence, victimized by their own adherence to a conviction which did not fit reality. By the middle-fifties local teacher curriculum committees, which at their worst confused scholarly discipline with democratic participation and at their best cast earnest teachers in roles for which they were only partially prepared and for which they had only the time they had stolen from their pupils or their own renewal, had come to be a snickered joke even among the administrators who were forming them. If ever there were a crying need in American public education, it was for a means of bringing the schools' curricular programming into conjunction with the reality of the production and development of knowledge as it had come to be in the twentieth century.

4.

Some educational changes occur over a long time, proceeding very slowly on purpose. They are changes which may be said to be not so much adopted as that they are recognized after they have insinuated their way into the school organization's thinking and practice, almost as though it were without conscious decision. Events outside the control of the organization seem to propel such changes, and they have their effects by being too powerful to oppose.

One such change has been from the schoolmaster mode to the organization mode[8] of keeping school.

The earliest schools in the U.S. were mostly one-room classrooms, or collections of classrooms, in each of which the teacher worked unaided. What work there was for others had to do with hiring teachers, paying them and taking care of the building and supplies, but not with the educational process. Administration, if that's what it could be called, had little to do with the educational process.

The people who taught in these schools were schoolmasters, a title implying authority to instruct. It was sensible, for the uses of authority are necessary, and in the absence of others to make educational decisions, teachers did. Better, it suited the traditional image of the old instructing the young. To the imaginative, the image was of Socrates walking the Groves of Academe talking with his disciples. Better still, it accorded with treasured ideas about freedom. And best of all, its common sense was incontestable: how simple and direct was the interchange of a body of knowledge between teacher and pupils. Such a pattern could be endlessly replicated.

The illusion persists that education is only what happens between teacher and child, and that anything else that goes on in a school is adjunctive, peripheral and, in the best of worlds, dispensable. Mark Hopkins at one end of a log and the student at the other[9] – the meeting of wise man and the eager student – is often supposed to be

the ideal, embodying the essence of the educative process. Not only many parents and other laymen still believe it, but some teachers do, too. That schooling does not really happen this way in modern schools is perceived as being unfortunate, due only to the manifest shortage of enough teachers and money in a society that demands schooling for all its children. Forced by circumstance to make do with less only heightens impatience with the steadily increasing complexity of an institution that should be very simple.

The ideal perseveres; in all times, despite Washington Irving's burlesque, the teacher in the master's mold has had our respect and love. We respected his learning and loved him because he cared for us enough to help us Become. He taught us more than we learned, but by his inspiration we also learned more than he taught. No wonder small children, before they become worldly-wise, equate all of school with their teachers.

The ideal perseveres, but the reality has changed. Teachers are no longer the only masters. There are others now who have educational authority, who supervise, coordinate and decide. In only the universities, a few private academies and some "storefronts" does schoolmaster power still rule. The teacher as schoolmaster has been overtaken by forces of need and capability. His role has been altered not by rejection but by alternatives better suited to the larger social tasks of schooling.

What has happened to the public schools is that they have become organizations and have in general obeyed a basic law of organizations which Kenneth Boulding has described in supply and demand terms.[10] Boulding has clarified the observable tendency of organizations to grow in size and complexity. When an organization responds to supply, it is responding to its own skills, to its own burgeoning capability, as, for example, when the schools began to include guidance counseling, primarily because a new set of skills had developed which schools could use. When an organization responds to demand, it is responding to new needs and habits, new aspirations and values, new perceptions observable in its clientele, actual and potential; as, for example, when high schools became mandatory or when commercial studies curricula were introduced. Moreover, supply and demand interact through mutual motivation, mutual force and mutual reinforcement.

Normally, to the degree that schools become larger and more complex organizations it would be expected that teachers would lose some of their former authority to make educational decisions.[11] The more complex an organization the more it requires coordination, and coordination necessarily constrains individual prerogatives. Some authority is displaced from individuals to designated coordinators called administrators. For this obvious reason the teacher working in the schoolmaster mode became a less tenable operational strategy as

American public school organizations grew in response to these forces of supply and demand.

A more powerful reason also was at work against the schoolmaster mode. By becoming more complex the school organization became more capable of employing alternative work strategies to replace the schoolmaster strategy. And most school organizations did choose an alternative, the strategy of specialization. In spite of the continuing high regard educators and public had for the ideal of the teacher as an independent all-purpose schoolmaster, the specialization strategy was virtually forced upon superintendents and boards by the new demands pressing on the schools.

Four major developments dictated the change. Population growth and urbanization, the extension of the grades through the twelfth, wholesale additions to the curricular program and the addition of a great variety of pupil services all made schools bigger enterprises, more encompassing and responsible for more of the total burden of education than merely the primary schooling which had been its only reason for being. The new responsibilities required specialized skills. The teachers who could learn enough in a two-year normal school to work in the grammar school grades were not equal to demands the high school made on their learning, nor were they prepared to discharge the duties of the guidance office, the library, remedial reading, etc.

After a time, another profound idea became policy in most public schools. The perception that the focus of education should be the child, not the subject taught, was hardly new; there are aboriginal tribes that understand it. What was new was its emergence into educational philosophy and social ideology as the unifying principle which allowed a large school organization manned by specialists to relate itself to children as the schoolmaster could. Not that all schoolmasters did, but it was surely characteristic of the best of them that they leavened their teaching of subject matter with a generous caring about their pupils. Specialists tend to lose some of that caring, in part because they perceive themselves as specialists in a field of study and in greater part because the efficient use of specialists typically results in teachers having to meet as many as 150 to 200 or more children a day.

What came to be called "the child-centered school" was a way of mitigating the potential depersonalization of the specialist strategy, and its motive could not have been more humane. Of course, that did not prevent certain hard-nosed "purises" and "basics" from becoming angry about the apparent denigration of subject matter. Though no educator intended to replace subject matter with children (as though so preposterous a substitution could be on purpose), some of the pendulum swings gave that impression.

The need for balancing the new view and the old, to get a good working mix from teachers combining a concern for children and for subject disciplines naturally resulted in some ambivalence, a price that

had to be paid. There were gains for children, though, as well as a modest advantage to the school organization.

The gain for the school organization might have been greater, for if a school really were committed to marrying the advantages of specialization and a determined emphasis on the individual child, its responsibility had to go further than exhorting teachers to "care about kids."

School administrators tried to go further than exhortation, but they did so hesitantly rather than boldly, always fearful of the risk of appearing to deny the teacher the prerogatives which custom held to be his. More, the probability is that administrators who were all former teachers, were themselves more committed to the ideal of the schoolmaster than others were, and, in consequence, rejected out of hand any diminution in its practice which was not forced upon them.

An uneasy and fundamentally untenable contradiction in instructional strategy has long characterized the public schools, not serious enough to be disabling, but weakening enough to threaten enervation. The schoolmaster is obsolete, but he survives. The organization mode is vigorous and capable of great development, but it is imperfectly realized.

Retrospection makes the diagnosis sure. The shift from the schoolmaster mode to the specialist teacher working in a child-centered organizational mode could not really be accomplished without new instructional designs and strategies. Local school organizations tried to invent such new strategies – curriculum outlines, progressive education, unit planning, grouping variations, the "experience curriculum," etc. – but none was powerful enough or comprehensive enough – good enough – to capitalize greatly on the potential of the organization mode. Neither school districts nor individual researchers were equal to the demanding tasks of developing the new educational products the change from the schoolmaster mode to the organization mode required. Indeed, they did not even know how demanding the tasks were.

NOTES

1 **Mort, Paul R. and Cornell, Francis G., *American Schools in Transition*. Bureau of Publications, Teachers College, Columbia University, New York, 1941.** Few books deserve the term "landmark" as much as this one. It was the first serious research study of educational change, and furnished inspiration and example to dozens of Mort's students to continue investigating educational change phenomena.

2. There are some differences of terminology in use, but the four stages, invention, development, dissemination and diffusion, have been the most commonly accepted.

3. Paul Mort defined adaptability as the "capacity to make wholesome changes."

4. As will become clearer in later chapters, the corruption of Mort's work into the "fifty year lag" hypothesis, though it grossly oversimplified his findings, was not as unfortunate as Mort's assumption that the invention phase of the process was adequate. In fairness, it was an insight no one had, then.

   In the case of the rate of change, Mort tried to say that the real slowness in the change process was its initial pace. Not only was there a period of failed inventions which lasted as long as fifty years, but once found the destined invention required fifteen years to penetrate as far as three percent of the school districts. After that the curve of diffusion rose acutely; that is, the really important slowness was early, not late, in the process.

   The reason why Paul Mort never paid much attention to the invention phase was, basically, that he accepted it as an inevitable expression of human creativity in solving problems, especially characteristic of and especially to be cherished in a democratic society in which the schools were thoroughly decentralized. But it is also true that an alternative invention mode never occurred to him. Had an alternative requiring centralized funding and control been suggested, the guess is, knowing him, that he would have opposed it.

5. **Griffiths, Daniel E.** ***Administrative Theory,*** **Appleton-Century-Crofts, New York, 1959, P. 101.** The quotation is offered not to embarrass Dean Griffiths, but only to show that even so able a scholar as he could as late as 1959 still have so implausible a view of the educational change process.

6. There seems no way that the importance of the change in the process of educational change is likely to be exaggerated. Already momentous, even revolutionary, its major effects are still in formative stages. We come back to the concept in Chapter VIII.

7. It is a fact, curious as it now seems, that in times past it was construed as necessary for those offering a new idea to state that it would require adapting to fit local needs. It was obvious, but it was required to be said nonetheless to give evidence of the power and self-sufficiency of the local school district.

8. Regrettably, the term "organization mode" has the sound of bureaucratic depersonalization, but even so it has the advantage of precision. For the record, "organization mode" is neither neo-Taylorism nor an attempt to reject the teachings of Follett, Argyris, Maslow or even the assumptions of McGregor's Theory Y.

   The term is a communication shorthand, as schoolmaster mode is, for a combination of characteristics. The chief characteristic of the organization mode is the displacement of authority to make decisions about curriculum and instructional strategy from the *individual* teacher to the organization, though most often decisions about tactics are not so displaced. Just how the organization makes curriculum and instructional strategy decisions varies among school districts. These days most use committees of teachers or teachers and

administrators to make these decisions (as executive committees) or to advise (as consultative committees) a designated administrator who then acts. In any case, the intention of the change to organization mode, and thus in responsibility and authority for educational decisions, is to coordinate. The reasons, the need, for doing so are plain.

The principal implication of the change does precipitate dispute. The shift in responsibility and authority seems to some to denigrate the professional status of the teacher and to damage the quality of his professional practice. In a sense, the argument is unanswerable; it can become a self-fulfilling prophecy. But a sounder view would seem instead to lead to the conclusion that the quality of teaching practice is more likely to improve, if the judgments about curricula and instruction strategies are better ones than most teachers would make alone. If in fact teachers make or strongly participate in making these decisions, authority is transposed only from the individual to the group, a not infrequent condition in all sorts of professional organizations.

In any case, the term organization mode is a name for a reality of school practice. In no way does it necessarily imply authoritarianism or unprofessional practice.

9. President Grant verbalized this personification of the concept of schooling.

10. **Boulding, Kenneth E.** *The Organizational Revolution,* **Quadrangle Books, Chicago, 1968.** (The body of the book is actually available in three different publications. It was first published in 1949.)

11. Simply because implications not intended are sometimes perceived, it may be worth saying explicitly that no denigration of the teacher's importance, the need for his special skills or the value of his commitment is intended or implied in evaluating the organization mode. Teachers are indispensable in schooling, still. Authority for deciding upon curriculum and instructional strategies has been displaced, but not teachers nor teaching.

    The fact seems rather to be that as more is known about teaching and learning the greater is the reliance upon the discipline of what in medicine would be called "procedure." When all there is to pedagogy is art, the reliance must be upon the individual practitioner's capabilities. As science increases, the reliance upon discipline becomes greater. Professionalism – in the best sense – also increases as the discipline of the science grows. To confuse talent and resourcefulness, however admirable these qualities are, with professional capability undervalues the professional power science confers. No denigration of teachers' professionalism attaches to the organizational mode. The contrary is true.

chapter three:

A superintendency team

1.

The Center for Urban Education was ready in 1970 to recommend a desegregation plan for Franklinsburg.[1] As such plans go, it seemed a reasonably good one to both RBS and the school administration, though it included busing as many as 45 percent of the children, and no one thought that would be easily accepted. Of course, the desegregation plan became the focus of public interest and dispute, but from RBS' point of view its own report on administration was much the more far-reaching.

2.

One thing a complex bureaucratic organization can do for the people who work in it is to furnish all sorts of reasons and rationalizations for job performances that fall short of expectations. Not only does complexity make individual liability hard to trace, but specialized roles and the complicated interrelationships among them are seldom so well defined as to prevent the role players from finding sanctuary.

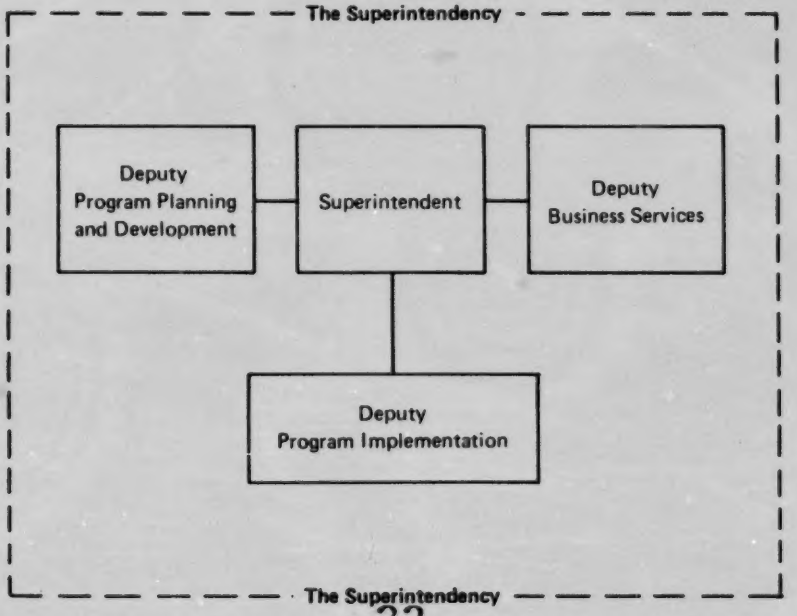
What was observable in Franklinsburg was that the top jobs of administration had been ineptly performed. In part, surely, this was due to erroneous conceptions of function insisted upon by the organization. Some of it was surely the shortcomings of individuals. But RBS did not need to say how much of which; that mix of malfunction is standard.

RBS started at the top with a restructuring idea called "the superintendency team." Hardly new (it was first described in the early fifties), the premise was that the work of school administration had become too great in amount, its parts too specialized and skill-demanding in function, and the organization entirely too complex to continue as credible the model of the one-man executive as an operational reality. Instead of one man lonely but puissant at the apex of the pyramid of superordination, the concept of the superintendency

structure is that of a team which shares the spectrum of administrative responsibilities as equals, but, recognizing legal and leadership necessities, accords the superintendent status as *primus inter pares.* The difference between the superintendency and the once-common departmentalization of administration, which featured virtually independent departmental chief administrators,[2] and which had long since been all but abandoned in the need for coordination, is in the meaning of *team.*[3] Not a very complicated idea to grasp. surely, and not so great a change from the well-established idea of consultation as to generate serious ideological opposition. The superintendency is not, however, quite so easy to practice for those who have been reared in another tradition.

To make the team, RBS identified four roles: the superintendent, a deputy for program planning and development, a deputy for program implementation and a deputy for business services. Except for the superintendent, none of these roles existed in Franklinsburg, not even the deputy for business services. The incumbent Business Manager-Board Secretary was an independent administrator who worked in a dual capacity for the board, as his title indicated, and who owed nothing beyond courtesy to any other administrator. Indeed, even the old superintendent's job did not survive, so differently did RBS define and describe it.

In the diagrammatic representation of which administration people are so fond, the structural design looked like this:



Besides being a superintendency team, the structure had two radical departures from typical patterns. One was that the day-to-day executive tasks commonly performed by the superintendent became instead the job of the deputy for program implementation. The purpose of the change was to free the superintendent for work deemed more demanding but less timebound; in effect, to find for the superintendent the time he never seems to have to do the longer-range thinking he should be doing but stints on because non-postponable tasks tyrannize his days. The second radical departure from the typical pattern was the role RBS called deputy for program planning and development.

There are few administrative titles in local school districts which feature "program planning and development," and until Title I led superintendents to appoint someone to administer Federal-grant programs, there may well have been fewer than would exhaust the fingers of one hand. Yet planning has been considered to be an integral element of the administrative role since serious thinking about administration became a respectable discipline.

If "planning" as part of an administrative title seems not to have caught on despite the function's being highly recommended; by savants, it must be because planning has always been conceived of as either: (1) a decision-making activity primarily concerned with future concerns, or (2) a component activity in the decision-making process, or both. "Planning" does not appear in position titles of school administrators for about the same reasons "decision-maker" does not. Both planning and decision-making are such pervasive behaviors in administration, it is believed, that they are thought of as generalized processes especially characteristic of administrative responsibility rather than descriptive of specific roles. Words like "superintendent," "principal" and "director" derive from the power to direct and control others, and are thus altogether suited to describe the traditional role-function by the status of management. In RBS' view there was need for an explicit, very high level functional role allocation to comprehensive planning.

3.

RBS had some plain truths to tell the school board. Like many another board the Franklinsburg board had learned to busy itself beyond affordable time with the details of prudential oversight and the nuts and bolts of business, the roles in which, apparently, it felt the most comfortable. Like other boards, its business was largely accomplished by small standing committees, so that the board meetings themselves were not forums for substantive discussion, thereby effectively traducing the open meetings statutes. Split votes were rare; the public was presented a smooth, disingenuous face. RBS, of course, recommended abolition of standing committees and encouraged truly

open meetings scheduled for evening hours, rather than the 4:00 P.M. time the board favored. Still, the major changes in school board behavior were more implied than stated. The RBS recommendations, among other things, had the intention of "opening the system" by a major use of lay advisory groups, as well as opening the board meetings, and the thrust was quite contrary to what had for so long been the case in Franklinsburg, as in so many other districts. How that would change board operations could probably not be wholly predicted, still its sense was disquieting to board members.

In modern school administration the impact of a board of education can easily be exaggerated. Certainly the ultimate exercise of power in local school affairs remains the board's prerogative, but except in crisis circumstances that is a power more latent than actual. Mostly, the board is content to deal with the superintendent, maintain direction of final budget amounts, and to play whatever modest political games conditions seem to require.

Boards of education no longer – except perhaps in the still surviving small rural districts – have the time or apparently the inclination, and certainly not the expertise – to keep current about what goes on in the schools. They know little, say, about the school program, or what teachers do, or how the counselor functions, or what options there are for changing any of those activities. The little they know has been told them, usually quite accurately, but only simplistically, by the superintendent and other administrators. What boards get as a steady diet are budgets, buildings and policy problems. In the time available, it is hard to imagine how they would have time for more.

If administrative efficiency were the major criterion, school organizations could probably do better without boards. But that is not the major criterion, or perhaps even a criterion at all. Boards defend a political principle; symbolically and actually they represent education as a function of government so vital to the democratic conviction that it must be decentralized by vesting power in thousands of citizens, by formal groups. No one could claim efficiency for such a pattern, but the claim of independence from tyranny is real. Of course, inefficiency which becomes ineffectuality is not a necessary condition of democratic process. The horror is that in many places boards have become both ineffectual and undemocratic, as was incipiently the case in Franklinsburg. But how much of the board's failings could more rightfully be ascribed to counter-productive administrative structure, function and role and to inept administrative performance RBS did not know for sure.

Still, it was clear that though board procedures could be improved, the improvement in board performance depended much more on what administration did than on how the board conducted its business.[4]

4.

Theorizing about the evolutionary changes in American school board behaviors aside, RBS had the practical need for transmitting its report and CUE's to the board for approval. The sensitive public issue was the desegregation report, and it was that which was therefore primary to the board. RBS forcefully urged open discussions of both reports before board action, and despite the board's feeling that "selling" the reports to the public was a better tactic than discussing it with them, RBS had its way.

All along, RBS-CUE communications were in some disrepair, though frustrations and delays, aggravating as they were, were easier to bear than the steam against desegregation being pressurized in the community through rumor and propaganda by those who were spoiling for a fight. It was late March 1970, before a draft of CUE's report was received by RBS, and April 8th was the first date that could be arranged for a board, administration, RBS and CUE discussion of it.

RBS was, to put it directly, not happy with CUE's work; less unhappy with the recommendations than with the data and analytical bases. President Nixon had exacerbated the problem by statements opposing busing for desegration, and it seemed to RBS that CUE had not provided the kind of evidence that could be adduced to make it as persuasive as possible in an environment turning increasingly more inimical to busing strategies. The local SAVE OUR SCHOOLS group, the code name for the anti-busers, made sure that the pressure cooker atmosphere did not lack fuel.

RBS hoped to minimize the conflict which everyone knew was coming by treating the reports seriously in an orderly and full-disclosure fashion. First, the board and administration would raise their questions, from which modifications and changes in the reports might be made, then the Teachers' Association would get the reports for its part of the discussion and consulting process. Then the reports would be released publicly and general meetings would be held. But rationality is often the first casualty in conflict, and so it was in Franklinsburg.

For its part the board was less than incisive in its analysis of the reports; in the administrative reorganization plan, for example, the board was attracted mostly by the change in the secretary-business manager role rather than in the more crucial changes. The basic questions went unasked. Predictably, the conflict hissing in their ears, board members asked for more time, but the board president, fortunately, rose up to persuade his colleagues that further delay would be irresponsible. RBS, obligated by commitment to the teachers and the public, quickly carried the reports to the teachers.

RBS' man in charge on the scene drew the assignment of presenting

the plans to about 300 teachers at a meeting on May 5, 1970, in an atmosphere that was polarized by mutually exclusive agenda.

On April 17th, the evening during which the board was discussing the reports, SOS met later with the board complaining that "parents were deliberately being kept in the dark." One of the board members aided the SOS cause. It had been agreed that the press would get the reports and a briefing on May 1 but would be asked to hold publication until after the meeting with teachers on May 6th. But the board and RBS were "forced" to release the reports for publication on May 1. On April 29, the press had attacked the board for its handling of the reports. Not unreasonably, the press pointed out that if publication were delayed until May 6th, the adoption scheduled for May 8th would perforce be uninformed by public discussion.

So the ambience in the hall was thick with anger on May 1, when RBS' man, the superintendent, a board member and a CUE man came to address the teachers on two reports which were probably the most momentous in the district's history. The conflict, which had so far been bitter but reasonably courteous, flared into overt discourtesy, and worse, unembarrassed irrationality.

The teachers simply did not want to hear the explanations of the reports. They raised all sorts of issues, ones which undoubtedly concerned them, but which had nothing to do with the reports, except that they did want to know how teachers would be assigned under the terms of the desegregation plan. The teachers' agenda consisted of salary matters and the board's apparent recalcitrance in negotiations.

On May 6th, when the official district spokesmen appeared before the public, the reaction was, in contrast, entirely predictable. Those who attended opposed desegregation and any busing it entailed. A petition bearing hundreds of names said so, officially. Unofficially, the shouted slogan, "Promote neighborhood schools, not busing," said it all.

On May 8th, eight of the board's nine members (one was on vacation) met to act on the reports. The administrative report was unanimously approved. Two voted against the desegregation report, one on the ground that "it was a serious mistake," the other because the physical plant, he believed, was inadequate for implementing the plan at the secondary school level. Both reports were adopted, and became board policy, however.

5.

The policies adopted, the superintendent now came into the spotlight. He was expected to make the policies work.

The scene the morning after was unpromising; except that the board had acted, all the other signs were bad:

> The fundamentally definitive change – in administrative organization, structure and roles – was not perceived as such by public, board or even staff. The worry was that changes in administration would be the most difficult to make just because a defective, deficient administrative organizational structure is the least capable of making changes which affect it.
>
> The less vital, but entirely necessary, change to desegregation was opposed by a powerful, organized group which preferred to hold the school officials accountable for a hated social policy; the authors of that policy were, of course, beyond reach. Irrational though it was, it made sense to those who pursued ends without questioning the ethics of the means. As though the situation were not already frustrating enough, Senator Stennis, an ardent segregationist, chose just this time to cite Franklinsburg by name as an example of northern segregation.
>
> Student discipline, in an atmosphere of protest against the Vietnam war, complicated by rapidly changing lifestyles and community conflict over desegregation, was a daily worry for administration. Actually, in the scale of perceived problems, most administrators thought the breakdown in student discipline rated first. Certainly it took up a lot of time other matters needed.
>
> For their part, at least at the moment, teachers were focused upon salary negotiations, which were in a troubled state, and their anger at the board and administration effectively consumed their powers of attention. Of course, there were those who opposed desegregation and/or their being reassigned.
>
> As if to grace the superintendent's journey toward implementing the two newest board policies, the results of a Federal study were released, showing that more than 5,000 Franklinsburg students should be classified as remedial reading cases.

All the superintendent had on his side was RBS, and maybe the commitment of the board to its policies, the latter was not only in some doubt, but of little help, at best. But as forthcoming events were to prove, it is not easy to help a superintendent of schools.

6.

The role of RBS was now changing from consultant to change-agent. From giving advice RBS' responsibility was now, primarily, devising the means of implementation.[5] Part of its change agentry was to operationalize the desegregation policy, which mostly was a straightforward laying on of extra hands. Though it was a venture continuously troubled by conflicts and frustration, it was essentially a job of making arrangements to carry out a set of ideas. It was, in a word, management.

The other part of its change agentry was far more complex. As change agent for administrative reorganization, RBS was trying to effect a series of intricately related changes in structure, roles and

personnel so that the Franklinsburg organization would in the future be able to contend effectively with its own needs. Claims for uniqueness are generally suspect, but it was surely unusual to be a change agent for a set of changes as well as for a change in the organization's process of change. There are few guidelines for that role.

The rest of the experience with the desegregation implementation can be quickly told. Despite the anxieties which were continuously heightened by a lawsuit and the conflicts going on in the community and among the teachers, all made the more difficult by unwisely promised information deadlines (they could not be met), the details of pupil and teacher assignments were announced by the end of the school year, 1969-70. Errors were made, including leaving more than a thousand pupils unassigned, and it was not until the end of July that a county court, by a 2-1 vote, found that Franklinsburg could proceed with its desegregation implementation, and, at length, that was what happened.

The whole desegregation matter, considered as an instance in national adaptation to new social policy, was inevitably accompanied by continuous disturbance. Had the school organization not been forced to act by law, it surely would not have done so on its own; the opposition was entirely too great for the schools to confront as an initiator of what it might have even believed to be desirable change.

Efforts to construe desegregation as an *educational* change are dubious, more probably spurious, even if certain tenuous evidence showing some improvements in the learning levels of black children is accepted. Desegregation in the public schools is quite well enough motivated as a way of increasing social equity; it cannot be gainsaid that one of the public school's prime functions is to teach by practice the imponderable skills of social living. Those who have criticized school administrators for being less than aggressive about meeting this responsibility, for failing to take the risks of change in the pursuit of equity of educational and social opportunity, are justified, as are all critics of human insufficiency. In fact, all public agencies find it nearly impossible to do more than the public will allow, and much of the public would not allow, in Franklinsburg and just about everywhere else, school administrators to teach the virtues of racial equality. Until the law sanctioned them, school administrators, even if they had been on the side of the angels, could not hope to initiate changes in the name of equity.

That was one proof in the Franklinsburg experience with the change called desegregation. As proofs of the obvious go, it is worth noting for those who are impatient with the realities of the administrative role. The more revealing and useful proof was how ineffectual in making the change the Franklinsburg educational organization was after it got its sanction to proceed.

The important change was to build the administrative capability to manage the process of change, and RBS never lost contact with that objective. That part of the change agent's role is worth telling in detail, partly because the narrative ought to be reasonably complete to be followed in its twists and turns, but also because it raises a number of questions about administration's role in educational change that have rarely been addressed and for which some of the most widely accepted current assumptions about the nature of the educational change process seem to be inadequate and misleading.

NOTES

1. The 19 recommendations of the plan are reproduced in Appendix A.

2. A surviving remnant of the practice is dual control of business and education administrators.

3. In fact, the team concept has these days become SOP in a great range of organizations ranging from medicine and government to schools. In the Watergate hearings it became a symbol for mindless obedience. Yet, the concept has power, the power of coordination.

4. Impolite as it may be to diminish the role of the board of education in educational matters – but not, of course, in political philosophy – candor requires that it be admitted that the processes of schooling have long since gone beyond the levels of complexity and expertise that board members could be expected to achieve. Not admitting the fact is to relieve administrators of responsibility that they really must accept.

5. Unfortunately, CUE did not choose to fulfill RBS' expectations in the implementation phase of the desegregation plan. Some bitterness developed over the issue, and all of the facts are not really clear, but CUE's position turned out to be that it did not perceive its role to go beyond consultation, a not unwarranted institutional posture. The impediment to its rationale was, however, that its position had not always been such. The upshot was to increase the burden upon RBS.

chapter four:

Research and development: a new thrust for education

1.

Objectivity continues to be admired as one of the shining virtues of the outside expert. He is pictured as coming to his tasks detached but alert, unencumbered by preconceptions, predilections or even convictions, prepared to be persuaded by the data alone. But even computers are something less than that neutral.

RBS did not strive to fit such a notion of objectivity. There were some preconceptions and convictions brought to Franklinsburg, which is not the same as saying that the answers were ready before the questions were framed. It did mean that RBS had been thinking about school administration and educational change and knew, or thought it knew, some truths. Instead of objectivity, the ideals were accuracy, fairness and integrity. Though these are subtle concepts they are no. as tricky as objectivity.

RBS was convinced that a new conception of planning had become a necessity in the practice of school administration, and a zealousness about that conviction was in the heads of its people from the outset. What that lacked in objectivity, RBS was prepared to say, was more than made up for by urgency of need.

Planning has been identified with administrative behavior for a long time. Almost automatically, taking thought about the future, the reasonable, common sense meaning of planning, had been assumed to be a part of the process of making budgets and other decisions about the organization. All decisions, in a sense, are predictions, for every decision implies that the course or alternative chosen will have more desirable effects than those rejected. The fact is that all administrators plan in this common sense, since none can function except as a thoughtful decision maker, concerned about future effects.

All true, but it was not this conception of planning about which RBS was so enthusiastic.

2.

Anyone who tries to understand school superintendents' characteristic ways of doing their jobs realizes that two contradictory pressures create a palpable conflict in their role-responsibilities. The pull is to maintain homeostasis in the school organization, and the push is to jeopardize homeostasis in an effort to improve the organization's work. Moreover, the severity of the pressures is increased by two prevailing conditions: one is that maintaining homeostasis in a complex organization requires small accommodating adjustments, changes; the second is that there are few, if any, school organizations in which the unmet needs are not so great as to force conscientious administrators to strive for the means of meeting them by making great changes.

This conflict creates a tension of judgment which is inherent and inevitable in the superintendent's role; what is really meant, perhaps, by the "burden of leadership." In practice, the burden upon administrative behavior is that other people are controlled by the leader's decisions, and the merciless expectation is that he may not err in making decisions which affect the lives of others.[1] The chief administrator must live with the extraordinary perils of risk attached to being responsible for the entire organization.

In practice, the perils of the superintendent's role are most often resolved by prudent behavior. The lesser risks are, normally, in the small movements, modest adaptations, adjustments rather than redirections. In the absence of compulsion, which may necessitate taking big risks, or assurances which minimize risks, the superintendent will typically opt for safety rather than take big chances in the hope of big payoffs.

Superintendents have long been bearing the brunt of blame for slowing educational change. The usual allegations are that they care more for institutional stability than for educational quality, that they value the safety of the status quo more than the excitement of forging ahead toward more highly valued goals; that they are so conservative that they willingly forego progress. Nor is it just an irony of circumstance that for the five years or so before 1956 the superintendent was being flayed by Flesch, Bestor, Smith, Zoll and the other, "axe-grinders"[2] for having faithlessly made too many changes too fast. The point of noting these matters is not so banal as to decry the vulnerability of the man in charge to often unfair cirticism. (It can hardly be news that the man on top is often only the man in the middle.) More worth noting is that the human predilection for blaming *someone* rather than *something* actually inhibits diagnostic thinking about how an unsatisfactory condition might be corrected.

For some time now it has been apparent that the superintendent has been the victim of forces and conditions over which he has had no

effective control. Some blame may be lodged against him, but not the blame which has been. His failure has been in being slow to understand what were the real impediments to higher quality school performance and for mistaking some non-crucial difficulties for the fundamentally crucial ones. And even for these errors the superintendent ought not to be held so culpable; those critics who have come to perceive the facts more accurately have not yet seen them whole or described them unanimously.

The trouble, it turns out, lies deeper in social, political and organizational designs than it does in the person of the superintendent.

3.

RBS itself was an educational invention less than four years old when it came to the aid of Franklinsburg. In itself it both symbolized and actualized a new American social policy for education. Knowing how and why that new policy had been made was an edge RBS had in diagnosing the trouble in Franklinsburg.

By the early sixties the number of Federal policy advisors who actually thought the answer to improving the public schools was more money for schools was much smaller than it had been, although the skeptics on the subject had always been a considerable minority. Many of those who had accepted the pleadings of the "official" school administration spokesmen in 1958, when the National Defense Educational Act was passed, had only a few years later come to believe that school administrators did not have in their heads or anywhere else the new practices which might make a difference. The new money in NDEA seemed in no way to catalyze, galvanize or otherwise substantially enliven the creative process by which new educational ideas were supposed to be generated.

It may be that educators were more surprised at the low level of innovative responses NDEA evoked than were the policy makers and policy advisors. Despite that, especially as political considerations overrode policy judgment, in 1965 the Elementary and Secondary Education Act featured Title I, a general aid subvention disguised as categorical aid by identifying a disadvantaged population as the targets of new educational attention. To those who had been trying to rationalize away the schools' unimpressive responses to NDEA, Title I was another big chance.

Whereas Title I implied innovative programming, Title III was explicit. Of course, the difference between the implied and the explicit is not really so momentous, but in this case what is significant is that Title III was an overt statement of social policy, radically different from the traditional Federal non-policy. The expectation of the Federal

government, the new policy said, is that the schools will develop and install vital new educational programs, for the schools are urgently in need of change. To many administrators the policy meant that there was about as much risk now in not changing as there was in changing.

Argument could be reasonably made that Washington did not really comprehend the complexities of school improvement, or even of school administration. The Washington policy makers may have doubted the efficacy of money, though political compromise contradicted their apparent better judgment. They had learned something from NDEA, if only to perceive that educators were themselves naive in believing that school district money was the controlling force in educational change. But in Title I and III Washington revealed itself in the end to be no less trusting by following the President's belief that new money for school districts would make the difference, if it were accompanied by both a carrot and a big stick.[3]

Title IV, the enabling legislation for RBS and other R&D agencies, was something else. It started from different premises, and it followed a new and different line of thinking about how complex organizations actually must manage the means of their improvement.

4.

Through all the years of American public education the means of improving the enterprise has been founded in a faith in resourcefulness. The faith was predicated on the basic conviction that schooling was a human activity improvable without descernible limit in all of its manifestations; that all of its structures, strategies and practices could and should be changed as problems were identified and their solutions devised. Improvements, the faith held, came about in proportion to the problem solving capability of the enterprise. In practice, that meant that the intellectual vigor, experience and drive of educators were to be continually devoted to inventing better ways to do whatever it was that schools were doing or would like to be doing. The faith was in the capacity of human intelligence to solve problems.

To make the faith work the principal requirements were freedom and the resources necessary to experimentation. It is just this faith in the process of problem solving and experimentation which Paul Mort expressed. Both the faith and the process are thoroughly characteristic of human experience in every field. There is no doubting their continuing validity and vitality.

But the process does not always suffice, and persisting in the faith that it does, can become destructive. Some problems are so complex, so intractable that they are beyond the powers of the intelligent resourcefulness, ingenuity and inventiveness of individual practitioners – administrators and teachers – or even of practitioners working

together in school organizations. Indeed, when inabilities to cope become so profound, it is an error in semantics to speak of them as problems, as though only some malfunction had somehow to be corrected. More precisely, problems so profound are really needs for new knowledge not yet gained, for competencies not yet understood and for new strategies not yet developed.[4]

Perhaps the point is so evident that no proofs are wanted, but a hundred could be cited. The vaccines against polio credited to Salk and Sabin were, actually, the outcomes of determined research and development focused on a disease not understood despite its having been treated for many years by thousands of physicians. Researchers by the hundreds in dozens of laboratories using millions of dollars over a score of years ultimately succeeded in understanding the disease and producing products which overcame it. Cures for cancer are being developed in the same way. The way to the moon was found by systems research through computerized management which made a bold new engineering strategy practicable. One day it may be that schools will possess the capability of teaching every "normal" child how to learn to read. If that happens, the bet is odds-on that it will not be because some teacher or administrator has solved a problem or two.

The concept of progress is entirely too philosophically subtle to be explored here, and altogether beyond any attempt to define it by generalization. But each organization is managed according to its prevailing interpretation of what constitutes progress. Each organization tests its change options against the validity and worth of its possibilities for progress.

The complexity of interrelationships among the parts of complex organizations increases the difficulty of making estimates of the current and future worth of changes for progress. Not only is any change anywhere in the organization likely to have its effects on other parts of the organization, and not only are some of these effects likely to be unpredictable, but the more interrelated the organization,[5] the greater is the probability that a change to improve one part of the organization will exact costs from other parts. That phenomenon is, for many, the best argument against the utility of large, complex organizations. They are devilishly hard to manage, just because decisions seemingly restructed ripple out to become nigh universal in their effects on the organization and, because they are largely unpredictable ripplings, and thus doubly dangerous, decentralization has the appeal of the alternative, which though less powerful, is at least less open to egregious error.[6]

The slow pace of the change from the schoolmaster mode to the organization mode is largely explained by the altogether reasonable caution of school administrators in the face of the terrors of being

unable to forecast and control the full cost of progress. Simply, school administrators have grievously learned at first hand the delusion of solving single problems, as though the parts of a complex organization were like pearls on a string knotted to separate and protect them from each other. Only those who have never tried managing anything larger than a research grant could so cavalierly ignore the dangers of massive interdependency. That school administrators have been willing to take the risks at all has been due to their becoming aware of the strangling limitations of the schoolmaster mode. They have, in fact, taken more risks than prudence warranted, because of the progress promised by the potentialities of the organization mode.

The trouble has been that school administrators have not had the tools for resolving the conflicts between the attractions of progress and the dangers of having to pay unpredictable costs for it. In organizations inevitably growing larger and more complex, experimentation – in effect, trial and error strategy – had unknown possible costs of error which were wholly unacceptable risks, or would have been so if the pressures of public expectations were not so unbearably great.

The tools for resolving the progress-risk dilemma are being forged, though they are not yet sufficient to the task. Two extraordinary new concepts have made the tool-making possible. One is systems theory, a way of knowing, which has great power in enabling people to think about large, complex organization, and the other is an alternative strategy to problem solving called Research, Development and Diffusion, R-D&D.

5.

The single most far-reaching change in the process of educational change in American history had a most modest introduction, coming into the world as Title IV of the Elementary and Secondary Education Act of 1965. Titles I and III got by far the lion's share of the money and virtually all the publicity. Looking back a decade, it was easy enough to see how the change in the process of change was foreshadowed by the curriculum revolution, by the inadequacies of USOE's Cooperative Research Program, by the positive experience of other kinds of large-scale enterprises with R and D; easy now to say that Title IV was an idea whose time has come. But in 1965 the impediments to a change to an R-D&D strategy for education seemed too great.

Mostly, the contradictions were political: the home rule tradition, especially as it was defended by the powers of the education "trade" associations (National Education Association, American Association of School Administrators, Council of Chief State School Officers, American Education Research Association) who were agreed on the undesir-

ability of Federal control of any sort. The conflict between home rule independence and states rights and the growing logical inevitability of a Federal role in public schooling had ebbed and flowed for decades in Washington, and if 1965 were to be a watershed year, it was not that clear to very many outside of the Executive Branch, who knew, one supposes, because they were told that Lyndon Johnson wanted to be known as an Education President.

As the ESEA legislation began to take form and, in common Washington fashion, took to being leaked to press and public, the emphasis was so much on the massive monies of Titles I and III that Title IV still remained little known. After the bill was passed, Title IV continued to be paid scant attention, except by university people. To them it looked as though that was where their money was; all the rest seemed to be the schools' and the states'.

In their customary way the universities began then to jockey for position near the mouth of the cornucopia. In the beginning they had no reason but to believe that Title IV was just another, more complicated way to get projects funded. But the new USOE bureaucracy formed to administer Title IV, working from concepts of the Act's framers, had tough new ideas to enforce.[7]

Some time and maneuvering were required to get these new ideas understood and, more, believed, but Washington was unremitting in its insistence and, in the end, Title IV research centers and laboratories conformed or failed of funding. The ideology of local control was not breached by the directive posture of USOE in the venture, for it was not involved. Title IV organizations were not like public schools; they were created by regional consortia, and they were incorporated as non-profit enterprises managed by representative, independent boards. They had no tradition or prior history. They had been created only to serve Title IV purposes and USOE had the uncontested right, it seemed, to see to it that they operated in accordance with the intent of the legislation.

Technically true though such a line of reasoning was, what could hardly be denied was the underlying intention of changing the practices of local public schools. That, logic demonstrated, was a kind of control, no matter that it was once removed rather than direct. But among the many surprises to those who were so sure of educators' doctrinaire attitudes was the lack of any concerted argument of this kind from the field. The cynics have siad that the argument did not materialize because school administrators did not awaken to the issue until it was too late, and that may be true, in a sense. The more prevailing reason for the lack of opposition was that school administrators needed help from any likely source and were not much, after 1950, inclined to argue technicalities. Besides, there was nothing which compelled the schools to pay any attention at all to the Title IV organizations. School

administrators were prepared to hold off and await the evidence, pragmatically.

In the meantime the purposes, goals and working characteristics of Title IV organizations were becoming clear, for the venture was forged through experience rather than cast in a preconceived mold. By 1966-1967, the emerging patterns could be concretely stated as follows:

> The mission of the *research centers* was to be chiefly on the application of research methods to educational problems, thus increasing knowledge through the development of prototype solutions and limited testing in schools. Dissemination of findings as consistent with research practice was also expected.
>
> The *regional educational research laboratory* was to mobilize the resources of a region to develop products for possible use by schools. The knowledge base for the invention was hopefully to include the knowledge emanating from the research centers.

[Early experience showed that the actual fit between the research center and the regional research laboratory was at its best very close, but mostly ranged from tenuous to non-existent. In practice, the research laboratory had to do much of its own research to fill out its knowledge base. Some centers also found that some excursion into development was necessary to the basic research mission. What was learned over a period of years, in short, was that arbitrary and rigid distinctions between the two kinds of R&D organizations had to be modified though the general concept remained valid.]

> The mission of product invention and development in the laboratories demanded that several principles be observed:
>
> - that educational needs rather than the problems of schools motivate the planning for the invention and development of products.
> - that the process of invention and development be understood to include research, field testing, evaluation, dissemination and diffusion, and as part of diffusion, some nurturing during the early installation period.
> - that products be understood to be differentiated from ideas by the test of utility; that a product be intended and thus fully equipped for use rather than for further adapting by users.

[Early on, it was characteristic of those school administrators who paid the laboratories any attention that they expected the laboratories to "solve" school district problems or give school districts new money for them to do so. To their intense regret, some laboratories misunderstood their mission and acceded. Their success was small, and, typically their life-span was short. Those laboratories which chose, as they were supposed to, the longer road of need rather than problem

made far better progress.

Since not much experience had ever been accumulated in purposive invention and development of educational products, the laboratories soon found that all sorts of ordinary questions did not have established answers. How much research was the norm for invention? How much field-testing was intrinsic to the development process? How much evaluation and recycling could be legitimately anticipated? By what criteria could a go-no-go decision ultimately be made? What relationships between the obligation to disseminate information and the obligation to defend against premature adoption were defensible? Dozens more such questions had to be raised and answered, and much time was so spent.

The product-idea differentiation proved to be especially hard to clarify.[8] *Manifestly, there was a difference between an idea, say, at the level of, "How would it be if we were to use some ordinary kitchen things in the physics laboratory?" and a product such as the Physical Sciences Study Committee's laboratory experiments which feature ordinary kitchen things. But the idea is here clearly the impetus. Is a product only an idea made concrete? In some cases, of course it is, and when it is, the difference between idea and product is a degree difference. The relationship between ideas and product is more a difference in kind when one compares, say, the concept that "instruction should be individualized" and the extensive curricular and instructional strategy products of Individually Prescribed Instruction. Moreover, some ideas can be adopted just as ideas. Mort, for example, studied the diffusion of an innovation he called, "Elimination of final elementary examinations." Important and philosophically significant an adaptation as it was an idea only, never a product. Other ideas require transmutation – development – into product before they can be used at all.*

All of this product-idea differentiation was the more confusing because ideas rather than products had typically been offered to the schools, nearly always with the unquestioned understanding that the adopting school was not only free but expected to modify the idea to suit itself. Products were not so offered, and no doubt that disconcerted many a teacher and administrator who assumed his independence to give him the right to be co-inventor and co-developer. Experimentation, which had always been the function of the earliest-adopting school systems, was for R-D&D no longer required. Schools now, in the R-D&D model, "bought a package," a posture which many found unpleasant.[9]]

The R-D&D functions, which the laboratories and centers were implementing, was to be understood as an addition to rather than a replacement for the traditional problem-solving functions.

[Problem-solving is the inescapable burden of all practitioners, and for administrators whose specialization is making decisions, problem solving is a way of life. Any help practitioners can get in solving their problems is all to the good. The reason for R-D&D had to be understood as the recognition that problem-solving was not enough.]

6.

As a political idea local home rule for education is a structural device of governmental organization mainly for: (1) decentralizing control over a sensitive institution so as to minimize the possibility of control by a central authority, and (2) allowing those who bear the greatest burden of costs to operate the institution according to their own best judgments, as a matter of fairness. To most Americans those are still valid reasons for home rule, even if the states and Federal government are paying more of the costs these days. Certainly, there are few who seem disposed to argue for a public school enterprise administered from Washington or from any state capital.[10] The political wisdom and worth of educational home rule is still strongly affirmed.

But a number of educational problems arise from the operation of this political principle. Some have been foolishly caused by educators themselves, and some are inherent. One of the inherent problems has been much in the courts of late, the matter of unequal financial ability among school districts. School districts have always been highly disparate in the tax base they can apply to education; simply, some are very rich and some are very poor. The traditional American belief in free enterprise is used to defend the effects of the highside disparity as the natural entitlement of wealth. By the twentieth century, the traditional attitudes in favor of the "natural" rights to the use of one's own money had begun to erode a little in favor of a value construct which in education came to be called "equalization." Under the pressure of the new value, different state finance formulas were devised which used tax collections from the wealthier to help the poorer taxpayers and the educational opportunities available to children in financially disadvantaged school districts.

Pluralism – the differences among school districts which result from their independence and their freedom to be different from each other – remains characteristic. Despite state equalization funds, differences in wealth remain. The imperfections of tax support formulas combined with a relatively declining tax base have been exacerbated by the manifold social problems which have engulfed urban governments. By a cruel irony the greatest educational and social needs have been concentrated in just these places where educational government adheres the least to the home rule principle and is also the weakest.[11]

However sound the political principle, it has nevertheless been misused to rationalize a myth of educational self-sufficiency. The myth has all but stultified the schools for many years.

It seems clear that the original impetus for the myth came from the desire by school boards and their superintendents to extend and consolidate their independence. But as systems theory explains, the effort to close an open system[12] must create and eventually increase strains beyond toleration both inside the organization and between the organization and its environment. The myth of self-sufficiency was, whatever else its original motivation may also have been, a means of trying to close a system which should have been more open.

In prosecuting the posture of political independence, school boards, and educators who must have known better, took the position that whatever a local school system needed in order to maintain and improve its operations it was capable of doing for itself, with only minimal help from ancillary agencies which in no way threatened its independence, such as book publishers, professors and test makers. Certain state regulations were useful, money without strings attached was, of course, vital and some statistical and other information could prove helpful. But otherwise the school district had to be recognized as willing and able to chart its own educational destiny. So was educational self-sufficiency equated with political independence.

Of course, school systems have never been really self-sufficient, certainly not anytime in this century, but by pretending to be the public schools actually had cut themselves off from the means of mounting major efforts to confront their common needs.

The painfully simple fact of American school district life is that no local school district can of its own resources choose to employ an R-D&D strategy for meeting its major educational needs. It is so chronically short of money for any but operating budgets that it can use even the less costly problem-solving strategy only to address its modest, not to say superficial, problems.

In 1965, there was no district which had an R-D&D apparatus in use, and as experience with curriculum construction by the Physical Sciences Study Committee[13] and other outside curriculum makers showed, no school district could possibly have afforded to have one. Now, experience with the research centers and laboratories has confirmed the fact.

7.

As long as freedom lasts, attacks upon the life-engulfing, depersonalized bureaucracies in and through which most of us spend our public lives as workers and consumers of goods and services will get sympathetic hearing, even when they are little more than confidence

"skams." The fact is that we are all in awe of the fearsome power of control which attaches to the large organization, of which the largest is government, and we need little convincing to believe our worst fears. Not only do we have George Orwell to identify the potential horrors, but we have our own daily frustrations and alienations to delineate them.

But our fear of large organizations, however many proofs there may be of its legitimacy, will not stay their developing. Life in contemporary society is impossible without large-scale organizations. If we fear them enough we may learn better how to circumscribe and rein their potential powers, but we cannot do without their services, as we know.

Our perception of the administrator is of a piece with the fear-dependency ambivalence we exhibit toward the organization he manages. He is more a symbol than real even when we know him personally. It is part of our picture of him that his role controls him more than his character does. The claims upon loyalty and the pulls and tugs of his leadership notwithstanding, most of us who work in large organizations have learned that both he and the organization must be monitored and, in the best interests of the society as well as of ourselves, opposed when needful with countervailing force powerful enough to control them. Naturally, to build a countervailing power of sufficient strength, we create another large organization.

In sum, we learn, somehow, to live with each other not only as persons, but as role-incumbents in organizations, and that may be nearly as awful as it sounds, except that being adaptable, we smuggle in as much humanity as we can. What may be less noted is that these relationships between the school and its teachers have been changing for a very long time.

In years past, school organizations, obeying then-prevalent notions of morality, exercised close control over the citizen rights of teachers. The board, at first directly and later primarily through its superintendent and principals, invoked all sorts of strictures about dress, smoking, private sexual behavior, use of alcohol, participation in partisan politics and the like. "Main Street" morality was enforced, often punitively, by an organization which seemingly never doubted that the wages it paid bought total commitment to the organization and whatever rules it saw fit to post. The corollary tradition was that teachers had no "rights" to influence organizational policies and administrative decisions. For far the longest part of their history, American school organizations have been autocratic rather than democratic, repressive rather than free.

But an opposite tradition applied to the professional authority teachers were allowed to exercise in their classrooms. Board and administration were quite willing to allow the teachers a master's privilege in his work, but not in his citizenship. One of the ironies of educational history is that the widest leeways of professional practice

were granted teachers when they were the least prepared professionally. As their training became more extensive, intensive and "scientific", their pedagogical judgments were increasingly constrained by the judgment of administrators.

Gradually, new social and psychological ideas made their way into organizational management. From Mary Parker Follett to Chris Argyris, a line of scholars argued convincingly that the older administrative notions of efficiency based on authoritarianism were actually ineffectual. Their message was that "human relations" paid off in greater production, because human beings had needs which, when fulfilled, caused them to work harder and more effectively. Taylor, the prophet of mechanized efficiency, lost his sanctity when it became clear that human beings really do not altogether respond as machines do.[15]

School administrators arrived at the newer ideas a little late. Until the 1930's, especially during the period 1910-1930, they were so taken with the model of the efficient business executive, which they were believing themselves to be rather than pedagogs, that they had embraced Taylor and his disciples with unquestioning fervor.[16] But the depression of the thirties and the impact of new management ideas had their effect. By the 1940's, at least for the most part, school administrators had reclaimed their pedagogical entitlements and no longer aspired to be like the once-canonized captains of industry whose claylike feet the depression has so embarrassingly exposed.

In the meantime, the once nearly total pedagogical freedom of the schoolmaster was in the process of changing. Slowly the realization prevailed that the organization would do its work better if there were greater continuity and relationship in instructional content, sequence and strategy. Supervision, which in its earliest use in American schools was largely a kind of teacher training activity, became more and more the means of expressing the administrators' ideas about how school should keep. Of course, the balance seemed always to be precarious, for while the administrator was pressing for his views, he was committed to honor the long tradition of the teachers' professional independence, too. He had a hard time of it trying to decide if he believed more in a teacher's teaching according to the administration's best judgments or his own.

NOTES

1. Administration has many burdens, in fact. One is that his accountability seems much clearer and more passionately invoked than that of others.

2. **Mary Anne Raywid** in her *The Axe-Grinders: Critics of our Public Schools* **(Macmillan, New York, 1902)** gave this genre of critics the name.

3. The political story of the Elementary and Secondary Education Act of 1965 has been well told, especially by **Bailey and Mosher, in their** *ESEA: The Office of Education Administers a Law*, **Syracuse University Press, 1968.**

4. Of course, this difference in meaning between "need" and "problem" is confusing because so many problems are symptoms of needs. To speak, for example, of the "problem" of the under-achieving child is only a shorthand way of saying, "Considering that the schools need to understand the motivational constructs and their etiologies in the cases of the under-achieving children, because we do not now understand them, the school has an immediate problem in knowing what to do with such children." The shorthand is good enough for operations, if what it stands for is remembered.

5. Systems theory explains this matter of degree of interrelatedness best. The common sense observation that some organizations are more tightly organized and more centralized is sufficient to the point, however.

6. As has been many times observed in all sorts of human endeavor, the first rule is not to succeed; it is not to fail.

7. As the sub-bureaucracy specifically charged with Title IV administration come together in USOE an interpretation of the Title was being formed; that is, its policies and guidelines defined the Title. While this is not at all unusual, what happened in this case was that a boldness and vigor emerged. The staff at USOE would not cave into field pressures and the vision of the Title as a network of independent entitles came into being.

8. In those early days of 1966 the product-idea difference bothered the laboratories a great deal, partly because a commitment to building a new product from the research – before invention-stage is an awesome responsibility for which to plan and budget. In effect, what the laboratory directors were being expected to do was to tie their future well-being, their survival, to their ability to build new products, a responsibility none of them had ever before had. But USOE was adamant on the matter.

9. The unpleasant feeling is not simply pique. The role of local teachers and administrators in educational change, which is itself in the process of change, has been severely dislocated. The negative responses often heard to "packages" are expressions of the trauma of dislocation; expressions of various kinds to be sure, but most are founded in doubt and dismay about role function.

10. Hawaii is, of course, the exception.

11. The Supreme Court has spoken on the issue in *Rodriguez* and for the present, the situation remains unameliorated for those districts most in need.

12. In systems theory, some organizations are defined as open by their nature and others closed. An open organization is one which is closely affected by the variable forces in its environment; a closed one is not so affected.

13. One of the great shocks to school people in the late fifties was the news that the Physical Sciences Study Committee's semester's course in Physics cost about $12,000,000 to produce, disseminate and diffuse. And that did not include the publisher's costs. Obviously, no such collection for curriculum development had ever been imagined, let alone planned or expended by the schools.

14. That there is a teacher role function in educational change is wholly undeniable, of course. The as yet unanswered question is what that role is to be, for it cannot be what it was.

15. Mostly the work of Elton Mayo et al in the Hawthorne plant of Western Electric (1922-1932) is cited as the landmark research in this matter of power of human relations. See **Mayo, Elton**, *The Human Problems of an Industrial Civilization*, the **Graduate School of Business Administration, Harvard University, 1946.**

16. **Callahan, Raymond E.** *Education and the Cult of Efficiency*, **University of Chicago Press, 1962,** is the definitive study of what may be the most benighted period of school administration. The period 1910-1930, approximately, was a time when American business exerted a charismatic appeal that is hard for most people now to believe, though there are still among us those who periodically offer Business as the Savior of Education.

chapter five:

The school district implements change

1.

As the specific means of enabling the Franklinsburg school organization to recognize its needs and to act at its best levels of response to them, RBS put its greatest faith in the superintendency team concept and in the "new" function it called planning. To make the superintendency team work, it was necessary to subordinate the business manager to the superintendent and to provide a deputy superintendent who would manage the day-to-day operations of the organization.

When the board adopted RBS' report presumably that was what it assented to, though there was reason to wonder about how informed that approval was. The board was betting on RBS. It knew little about school administration and even less about the process of educational change, so it had little choice. Not only the board, but the superintendent actively wanted to leave things to RBS. He was willing to let it all happen, helping where he could.[1]

2.

The superintendency team idea depends most on the ability of a group of administrators to think together and to make judgments and decisions. So much of human behavior is involved in that process of thinking together that differing views of it all seem to be relevant, and trying to describe it becomes complicated by having to choose among the views. For example, some stress leadership, claiming with obvious accuracy that the group must serve the superintendent, who is the responsible and accountable person in the organizational structure. Thus the argument runs that the superintendent has to lead the group lest it dissipate its potential in directionless talk and inconclusive inconsistencies. But, say some others, suppose the leadership is so strong that the group degenerates into up and down nodders, perceiving that "yes" is the safest expression? No, that would not be leadership; authoritarian is the word for that sort of behavior. That line must be drawn or the whole concept is negated.

True, but who has a meter or an idiot light that shows when strong leadership becomes its own antithesis? The group has in its determination to maintain its integrity of function its reason for being. At best, the superintendent will be scrupulous in according the group members their prerogatives and maintaining a climate of equality of function, but if he strays, the group has to keep him honest. But what of the team member who arrogates power to himself, who somehow takes authority when it is not his to have? Certainly the phenomenon occurs, and the group process people even say that actual leadership function does emerge in a group according to situation and personality. Can a superintendency team continue if the designated leader is, in fact, not the leader? No, but the concept of shared and dynamically changing leadership must be admitted as a reality modification, existing along with the concept of status leadership. Arrogation is out-of-bounds, but emergent leadership is great.

Thinking together is, nevertheless, not enough, for unlike the academics who think up concepts such as the superintendency team, school administrators dare not spend all their time thinking, though they have to think all the time. A lot of their time has to be spent doing[2] whatever it is that administrators do.

Team behavior is not a practice to which people easily adapt. Schooling of the most intensive kind is required to bring individuals to the point of working well together, as all sorts of examples from the simplicities of sports to the esoteric reaches of government, business, medicine and scientific research show. Were it less than necessary, forming and operating a team for administering an organization would be to borrow trouble, but the fact is that the necessity is almost vital, which is why teaming has become a virtual cliché despite a cultural bias in favor of individualism. Organizations have become much too complex to entrust to single executives acting alone at the highest levels of decision-making.[3]

RBS recommended the superintendency team because in 1970 there was no reasonable alternative but to make that change in management structure and strategy. All RBS could do was to accept the difficulties of the change and try to help Franklinsburg get some good new people where possible.[4] The task of training them all in how to be a superintendency team lay ahead.

3.

Desegration was the uncomfortable issue that everywhere confronted the school officials. The changes which would be forthcoming were paramount concerns. There were sure to be strong emotional reactions from parents, students and teachers, as well as from organized groups in the community and from the newspapers. But in May 1970, very soon

after the board adopted RBS' report on administrative reorganization, the superintendent was ready to move on it, perhaps because it was overshadowed by the desegregation issue. Resistance might have been expected, for the recommended changes in administrative roles and lay citizen participation were fundamental and should have been controversial. But they were not, evidently, the kind to which the public pays any particular attention or tries to understand. But not even the board, the administrators or the teachers seemed to have unanswered questions or doubts.[5]

RBS had no illusions about how much work it would take to put it all together. To implement its concept of the superintendency team, Franklinsburg was not only adding two deputy superintendents whose functional roles were totally new and wholly reversing the status of a business manager who seemed to be entrenched in a powerful position, but it was adding as integral to the structure several lay advisory committees to give the community a consultative voice in school affairs it had never had or particularly said it wanted.

What RBS wanted was that Franklinsburg's administrators be able to comprehend both intellectually and practically the distinctions between the two different and often apparently conflicting responsibilities of administration. The evidence was not just that administrators in the past had an insufficient understanding of these two responsibilities, but that they could not, for that and for a lack of a structure, reconcile the apparent dichotomy. Revising the structure and adding new administrators would alone not be enough; the principal matter was understanding.

Chester Barnard, in *The Functions of the Executive*,[6] said that the administrator's "specialized work is that of maintaining the organization." Though he did not so mean, what was undeniably a *first* priority responsibility was widely interpreted to signify *only*. Barnard did not, of course, create the idea that maintaining the organization was the administrator's first vital duty; that much is no more than the instinct for survival glossed a specific way. By dressing the idea in full paraphernalia, he gave his blessing to what most administrators had been doing since the boss Cromagnon set out the first schedule of fire-tenders in the cave.

The other responsibility of administration is to improve the organization. Improvement is a quicksilver kind of concept; sometimes it is solving a problem by making a change major enough to make a difference but non-controversial enough to avoid upsetting anyone or anything. At these levels improvement is a kind of maintenance activity. Sometimes improvement demands changes in goal-structure, function, role, relationships content or process great enough to threaten the homeostasis of the organization.

By subsuming improvement under the maintenance dictum and deriving it from problem-solving process, Barnard and his later academic disciples[7] managed to minimize and obfuscate the vitality of the functions by which major improvement is made. Two or three decades ago the error was not apparent. On the contrary, by confirming and codifying current practice Barnard's dictum earned the esteem and gratitude of executives. Events have overtaken the practice of administration. The world of schools is a different environment in the seventies, less secure, more demanding.

In the world of the seventies educational improvement can no longer be considered merely an aspect of administrative maintenance and problem-solving. At the very least, improvement is, perforce, a co-equal responsibility with maintenance, and, in that case, it is apparent that school administrators do not have available the tools in structure, function and role necessary to dealing with improvement operations at anything like so high a level of importance. The obvious reason why is that when improvement is an aspect of maintenance – essentially making adaptive changes to keep the organization on course – major changes which threaten the steady state are beyond tolerance, and thus, below conscious conceptualization. When improvement is just the outcome of problem-solving, the implicit assumption is also that disturbances in routine or malfunctions in performance or adaptive reactions to new situations and conditions require correction lest they unduly disturb the steady state.

RBS hoped that the superintendency team concept it devised for Franklinsburg would give it the confidence of confronting needs for change; at least of being willing to believe that the needs for change demanded organizational responses at the highest levels of capability.

4.

Although the superintendency team concept was about twenty years old when RBS made it the core of its recommendations for restructuring the administration of the Franklinsburg schools, it was so different a version as to amount to a reconceptualization. The superintendency idea had derived from perceptions and formulations concerning the coordination function. The search had been for a means to diminish the excessive "pyramiding" of the hierarchical structure of bureaucratic organization which led to an apex of power and control. From that apex the superintendent was finding it increasingly difficult to manage. He had lots of power, but too little insight and close-in knowledge to use his power as wisely as he wished. The symptom was widespread in the school systems already grown much larger by the fifties, and the remedy of the superintendency team concept, trading

off some power of control for greater efficacy of coordination, was a specific therapy.

RBS wanted more than that from the superintendency concept. The prime need was for a competency to manage improvement as well as maintenance, and RBS redesigned the concept by adding the planning function in an especially strong way to the mix of administration. To do it, RBS had to redefine the specific responsibilities of the superintendent of schools.

The working hours of the superintendent are regularly filled with the non-postponable routine of being the chief decision-maker. Indispensable work though it is, rated so high that it is intended to be the chief work of the organization's most powerful and highest paid official, RBS' new design replaced the responsibility of the superintendent's doing daily routine management chores with responsibility for the planning function, providing a deputy for "Program Implementation" to whom the mass of executive function would be delegated.[8] Seemingly, RBS was "downgrading" the organizational maintenance function and "upgrading" the improvement function, but in fact the intention was only to balance the functions operationally.

But coordination, the function of orchestrating all the work of the organization, can never be taken away from an organization's chief executive. Accordingly, a "Deputy for Program Planning and Development" was added to the team to assist the superintendent, too. In effect, RBS perceived a superintendent who was the active leader in planning as well as the chief executive and coordinator; the leader of a team of administrative specialists.

The RBS superintendency team design was bold, requiring several wrenching changes at one time. It could not be easy for the organization to digest. The superintendent was to be the chief planner, and yet a "unitary executive" so as to divorce the business manager-board secretary from his executive power base in financial affairs, upsetting a long standing status to which everyone in the organization was apparently adjusted, despite its being an unwholesome condition. New status roles were to be introduced, yet the people in the organization could not find models anywhere by which to be guided in their reactions. And, of course, all this was to occur during a time when desegregation and teacher negotiations issues were already increasing apprehensions not only throughout the community but also among school people. The recommendation was perhaps too bold.

So RBS was led, as much by its own perceptions as by representations from others, down the primrose path of practicality. To know always what is really practical is a wondrous power, for its disguises are so often impenetrable. The judgment was that the transition needed time, and that could be gained, it appeared, only by compromises in the design. What was compromised was the concept,

though it was only later as events demonstrated it that the fact emerged.[9]

At any rate, while some RBS people were diligently working at making desegregation happen, others were searching for candidates for the two new deputy positions. The main compromise was to find a planning deputy to assume major responsibility for the function and to be the unofficial superintendent designate, for the incumbent superintendent had not very long until retirement and, moreover, was uncomfortable with the new planning and coordination function. The deputies were found, the one for management from inside and the planning man from outside the organization.

5.

The RBS effort turned now to implementing its own (partly compromised) structure for administration, having "temporarily" redesigned and manned it. Job descriptions had been written, much had been said in explanation, a guide for planning had been forwarded from RBS to Franklinsburg, but the level of confidence in the ability of the superintendency team to make the transition was still in question.

Educators have great faith in education as a basic problem-solving mechanism, very much as nurses put their faith in adhesive tape as an all-purpose repair medium around the hospital. Thus, the seminar seemed to be the appropriate vehicle for schooling the team in its roles as a superintendency of education.

The special-purpose seminar is a dangerous instrument for two discomfort-maximizing reasons: (1) it is grimly goal-oriented, and (2) it allows participants no anonymity in which to hide. The two-day seminar which RBS held for the team proved the danger was real.

Following standard practice, prior to the seminar each member of the team was asked to prepare a variety of questions as a way of expressing his concerns about the team and his and other roles, how these related to the organization, and, especially, what professional needs he felt. Many of the "right" questions were articulated: how can people adjust to shared responsibility?, how will guidelines for actual operation be made?, what are the communication means that serve best?, can deputies be by-passed?, how will the deputies relate to the board?, what is the team's business and what is not its business? The newness of it demanded these questions. And duly noted, RBS tried to weave specific responses into its prepared agenda, which was basically organization theory and role theory spiced with practical procedures in project management and comprehensive planning. Who better than the instructor knows what his students ought to know? Some illusions, of course, never change.

But there is no reason to be snide; actually it was not so long a reach between the things the team members wanted to know and what RBS wanted to teach, even if the language was not quite the same. Certainly, organization theory was germane, and surely role-analysis, perception, expectation and conflict management were on target. Role-playing and position guide analysis had to help. But the time was too short, as it always is.

From RBS' point of view all the agenda items were important, but what they had to say about (1) comprehensive planning, (2) project management, (3) systematic approach, and (4) position guides were vital. And it was at the point where RBS was building to crescendo that one of those altogether revealing experiences just suddenly happened. What, the RBS seminar leader asked the participants, do you personally want most to accomplish for the schools? Any responses would have been normal, expected. But a silence of some five minutes was not just unexpected.[10] It was frightening.

There was a lot of work yet to be done in forging an able superintendency team, and RBS was ready and willing – even able – to do it, but the unremitting pressure of desegregation displaced priority, time and energy. After the courts denied the opposition's petition in late July of 1970, the implementation phase – essentially the busing schedule and assignments – had to be readied for September. "Had to be", for non-postponable tasks make their own priority.

There is really no reason to recount the aggravations and frustrations that followed. Though not precisely predictable, the general nature of untoward events was entirely unsurprising. The hard "dog work" of assigning teachers and pupils, scheduling buses and children, etc. took manpower and time in monstrous amounts. Objections of every conceivable kind arose from every conceivable source. CUE, on whom RBS had so much depended to cope with the desegregation matter, did not – for whatever reason, right or wrong – come up to expectations. A resignation by one key member of the superintendency team and reactions which others displayed, increased the burden on RBS people. Contrary to original plans, RBS was *doing* rather than *consulting* on the management of desegragation.

On September 3, 1970, the RBS man in charge would write in his log:

A. Team members are very busy trying to tie together loose ends. Schools will open next Tuesday and Wednesday.

B. There are still many problems and there will be many problems, especially

   1. Parents with their children at the wrong school.
   2. Problems with bus stops and routes.

3. Bus monitors unhappy with their assignments.
4. The attendance reporting and accounting system will no doubt be bogged down.

All these predictions came true. Nor was it surprising that the Franklinsburg administrators did their best to get the RBS people to solve all the problems.

By late October, the schools were operating reasonably well, though parental complaints kept coming. That surprised no one, either.

6.

When RBS could again turn its full attention to the administrative reorganization there was no choice but to deal first with the nuts and bolts of structure. Who reports to whom, superordinate and subordinate has to do with security as well as with operations, and while the fundamental matters of superintendency team, planning, budgeting process, project management and systems thinking were all crying out for attention, the need that people had for security cried out the loudest. There is, of course, no way the structure at the top of an organization can be changed without the tremors reverberating all along the hierarchical line.

RBS was not then prepared to address one fundamental structural question, and no one else was either. Indeed, no one was ready to frame the question, chiefly because no one was really prepared to challenge the oldest tradition in school administration, the school building. In a thorough going systems approach to the structure of a school organization the "parts" of the organization which are "coordinated" are the "missions" of the organization.[12] And though there is no agreed-upon taxonomy of schooling missions, it is certain that a building is not a mission.

The logic of a building is that it is a physical entity and intrinsically provides spatial parameters for orientation and management. Even when it is not "independent" it serves to some appreciable degree to decentralize administrative powers in a logical and immediately comprehensible way. In short, a building is an administrative convenience. School organizations started in America as buildings. However large districts have since become, buildings have retained status as the central manifestation of administrative organization and structure.

How then, in an organization coverting to a systems approach to schooling does the school principal – and the decentralized status he usually represents – fit? How much program authority can a principal have if missions (whatever else they are, missions must certainly be programmatic) are centrally coordinated? Is it enough in maintaining

his place in the hierarchy to arrange a heavy consultative role in planning for the principal, while reducing his role-status as a building's chief administrator, or must the redefinition be more profound?

There are yet no answers to these questions, and they are more than likely premature, at least in the sense that there is no doubt of the persistence of the building both as artifact and as administrative tradition. In any case, RBS did not confront the issue.

Instead, RBS tried to "satisfice" at the level of rational job definition within the tradition and for communication at some level that could be deemed coordinative. As a beginning, a long round of interviews (using a common protocol) with role-incumbents at every level of administration was carried out by RBS people. It helped.

Budgeting was much on RBS' mind. Somehow, if Franklinsburg's administrative personnel at all levels could play their appropriate roles in a well-conceived budeting process, one which featured planning strategies, the faith was that a long step forward would have been made. Not only that, but a new confidence in their own capabilities would have been sustained in Franklinsburg's administrators.

Another seminar was indicated, and it was scheduled for Columbus Day, 1970. In the meantime, the status of the Franklinsburg schools was pronounced best by the evening newspapers: "Sharp Drop In Trouble at City Schools" the headline said. So it seemed, but newspaper editors do not know everything, their assumptions to the contrary notwithstanding. There was still plenty of trouble, but less of it showed.

NOTES

1. No mention is made of money, but Franklinsburg paid for RBS' initial work. RBS was more than willing to work longer and endure a lot more than the money paid for only because it was field-testing its ideas at the early development stage. Later, RBS invested substantial resources in implementing and refining the superintendency team concept.

2. Many years ago a particularly wise professor at Teachers College, Columbia, Harold Rugg, used to say that a school system needed two superintendents, one with his feet up on the desk and the other with his feet on the ground.

3. The hypothesis is that people all have their thresholds of tolerance of complexity. Up to the point, they cope; beyond the point they do not.

4. The incumbent superintendent and business manager were going to stay, of course, and the business manager's existing status was at least half the problem. Whether he could be "changed" was a nagging question.

5. Of course, there is no reliable way of knowing what attitudes there were which were simply unspoken because other issues, primarily desegregation and salary negotiations, had so much priority. Nor is it unreasonable to suppose that dissatisfaction with past administrative operations was so great that almost any change was perceived as worth trying.

6. **Barnard, Chester I.**, *The Functions of the Executive*, **Harvard University Press, Cambridge, 1938.**

7. Probably the best known of these disciples is Daniel Griffiths, by reason of his monograph, *Administrative Theory*.

8. Technically, or perhaps legally, it was still true in the RBS conceptualization that extraordinary matters – new problems, seriously disturbed routine, etc. – would reach the superintendent.

9. The impression is very strong that the error was unavoidable, perhaps even that matters might have been worse otherwise. There is, of course, no way to know. The pace of change is nearly always an imponderable.

10. Especially disheartening was the superintendent's silence for the crucial issue of leadership was at stake.

11. As fortune would have it, the resignation was the Deputy for Program Implementation, the man whose responsibility the implementation of the desegregation plan would have been. Worse, the Planning Deputy had to take over the implementation work. Again, the old tyranny of the non-postponable task.

12. The simplest definition of a "system" is that it is "a set of parts coordinated to accomplish a set of goals." The definition is **Churchman's** *The Systems Approach*, **Delacorte Press, New York, 1968**, as is the identification of missions as the "parts."

chapter six:

Getting knowledge into practice

1.

Quite likely only a very few of the most orthodox still believe in the pure positions of the old argument between the human relationists and the structuralists. Most disputants have long since agreed on the mutual essentiality of people and organizations. "People make organizations, but structures define their functions and roles." The argument in pure terms is tiresome. If the human relationists could only refrain from nagging about it, the conflict would expire for lack of provocation.

The trouble is that human relationists seem everywhere to find administrators who have lost their awareness of human need and purpose, because they have succumbed to the wicked attractions of the bureaucratic means. Being so provoked, the human relationists keep nagging, a duty the righteous feel the most keenly. They keep nagging even though they know that just as all drunks are contrite when sober, school administrators away from siren-song of bureaucratic power have no trouble vowing their love and respect for the people they direct.

They might as well be tractable, for how can a pragmatic, goal-oriented administrator argue with those who claim all the values of humanistic morality? Especially, how can they effectively oppose values they strongly believe just because they find themselves strongly influenced by opposing considerations they perceive as being also, perhaps even equally, valid?

Structuralists do not, in fact, defend their position with rhetoric very much. By this time, structuralists, who mostly think of themselves as administrators, either practicing or teaching, have learned to recognize that the largest number of professional human relationists are happy enough if they are allowed to ply their trade as trainers in the tactics of leadership and consensus formation. Indeed, the more cynical administrators have learned how to use the group process and sensitivity training practitioners are unwitting[1] aides in the blacker arts of manipulation.

In sum, the argument is foolish and fruitless. Any structuralist-administrator who denies the human values in an organization is a bad structuralist and a worse administrator just as any human relationist who denies that the work of human beings in organizations needs discipline, structure, function and form is a bad human relationist.

The reason for bringing the matter up is, however, an important one. The meaning of the contest between the views has been transformed, now. At issue is what understanding of public education shall control educational change and improvement. The conflict is between organization strategies and person strategies. There is no way to exaggerate how much depends in the world of education on how wisely that issue is resolved.

Great social changes, it seems, typically begin with a period of evolutionary stirrings. The revolutionary stage, if it comes at all, is a dramatic escalation of what was already in process. The apparently revolutionary social policy expressed in Title IV, ESEA, a careful look far enough back shows, had its earlier events.

The schoolmaster mode of keeping school in 1965 had been in the process of being replaced by the organization mode for about a century, perhaps a little longer.[2] That the change occurred does not of itself prove that it was either inevitable or wise; what continues to be significant is that greater reliance on organization and on administrative leadership was simultaneous with great increases in the educational level of teachers. Both the increase in administrative sophistication and the professionalization of teachers were responses forced by the public's insistence upon having schooling which matched its expectations and aspirations for the good life. Schooling may be "the imperfect panacea,"[3] but since the latter half of nineteenth century Americans have put a lot of practical faith in it, nonetheless.

One enormous consequence of the change in schoolkeeping modes was that it transferred primary responsibility for educational change and improvement from the teacher to the administrator. The evidence is that it was a responsibility he could not altogether handle.

2.

By the third decade of the twentieth century Paul Mort found, and Brickell later corroborated[4] that despite the myth to the contrary, teachers were not principal actors in the process of major educational change. They were inventors, but only of minor, trivial changes. Not useless ones or even uneventful ones; what teachers mostly invented, and that dependably, were the small skills of teaching, minor adaptations, a kind of "Hints From Heloise" collection.

There was, or should have been, no denigration of teachers in this. Changes of consequence – adding vocational education to the school program, say, or adding a kindergarten to the grade sequence, or extending foreign language instruction to the elementary school or abandoning interscholastic football in the junior high school – were by their nature the organization's decisions. Not only had they to be made by the authority of the organization, but such decisions inherently depended upon a comprehensive grasp of the work of the whole enterprise. In a time when improvements were in fact organizational, teachers were effectively barred from making the major, substantive changes. Administrators, overtaken by the logic of organization, saw they had no option but to accept what had been the master's responsibility.

One corollary of such responsibility was an extended control of teacher practice; not total, by any means, but appreciably greater, and growing. Inevitably, teachers, whose citizen rights within the school organization were emerging from the grip of administration, could not just accept the diminuation of their professional authority. Status was involved.[5]

Thus, it was during this time – essentially this century – that what has come to be called "democratic administration" came to be all but general. What authority the individual teacher was losing as a master, he made up, in a sense at least, in influence as one of the group of teachers who insisted on and typically got the rights of consultation. The schoolmaster mode had to be phased out, not only administrators, but many teachers realized, but the master's posture of pedagogical authority could not be given over to administrators without something in return. The least the growing professional expertise of teachers warranted was the right to have a say about the decisions which affected the jobs they did and how they did them.

Many, maybe most, administrators agreed that teachers deserved more opportunities for influencing the organization's decisions. Actually only degrees were in question: How far should the phasing out of the schoolmaster mode go? How far could the teacher's role in decision-making process reach before it interfered with administrative responsibility and authority? Such degree questions almost never get wholly resolved, but a consensus reasonable enough to maintain school organizations did emerge, aided no little by the slow pace at which the changes were made.

The steady state which organizational maintenance requires was not, then, unduly threatened by the evolutionary change in operating mode. The relaxation of administrative controls over the citizen rights of teachers within the organization and the concomitant implementation of teachers' consultative rights in the decision-making process were sufficient adaptations in a time when teachers were anything but

militant. Perhaps unexpectedly, the trauma in the change was not especially the teachers', though the power lost was ostensibly theirs. The reasons why teachers have been adapting to the organization mode were, probably, their realistic perception of its inevitability and its wisdom, as well as an appreciation of how increasing complexity necessitates greater coordination. But there may also have been some intimations of relief, too. Not every teacher by any means wanted to carry the burdens of pedagogical decisioning alone. The greater trauma was the administrators'. It arose from their incapacity to accomplish the new pedagogical responsibilities they were accepting.

3.

The trauma of administrators in the change to the organization mode was not so great in the beginning; at first, the former teachers who were and are American school administrators had little apparent trouble. When society's demand for educational improvement turned nasty, the serious trouble began.[6] And here again there was an unfunny irony.

In the early 1950's when the organization mode was jelling, the public's dissatisfaction with the public schools was expressed in attacks from the Far Right, from a group of critics who were politically inspired by the aberrations of Joe McCarthy, but who probably voiced attitudes long held by many of those whose inhibitions he released. What the attackers focused was the frustrations of those who felt that the schools had made too many changes, had departed from too many fine old traditions, had given up too many proven virtues in taking on a mess of poor and watered-down alternatives and additions to the school program. The old rigor such as characterized the schools that really taught reading, writing and arithmetic had been lost – deliberately, the critics implied – so that new generations were growing up ignorant. The critics were anti-change, except that they wanted to change back.

Administrators, who were, of course, singled out for these attacks, had a couple of tough years beating off this lunatic fringe, and no doubt some were confirmed in their fears that the risks of change were too dangerous to take. But events moved fast. As McCarthy dissolved in disgrace and his followers faded back into the anonymity from which they had come, a saner look at the schools confirmed the worry of all sorts of people who had not been at all persuaded by the likes of Zoll, Bestor and Flesch. By the mid-fifties, it was apparent to major sectors of the public, but especially to educators, that the educational status quo was not good enough. They knew that the schools stood in great need of change.

Despite its having become conventional to disparage the school administrator for an apparent mania for stability which impedes

educational change, the truth now seemed to be otherwise. Greater forces than prudence had him now in thrall.

As a group, school administrators were as aware of the need to improve, as dissatisfied with the quality of performance of the schools, as any. If their public statements did not clearly say so, the reason why is that they thought such admissions had to be modulated by requests for money, and the getting of money seemed tactically to argue for claiming good results from money already in use. They knew, though, probably best of any others, how a half-century of "exploding" knowledge and unprecedented societal changes had outrun the efforts of educators to keep consonant with the demands which events, as well as people, were pressing upon the schools. Allegations that administrators were somehow unresponsive to all of these pressures are unfair, silly actually, imputing to administrators an insensitivity and unconcern that had no basis save in bias or in ignorance of who they were.

The gulf between public expectations of education and the capacity of the public schools to respond derived from traditional school management concepts that ran much deeper than could be attributed to the idiosyncrasies of contemporary school executives, no matter their intelligence, courage or character. A way of managing school organizations had reached its limits. A strategy of school administration so secure it was even then being stated in comprehensive theoretical formulations[7] was simply no longer powerful enough to control the process of educational change.

Like the transportation expert, about the same time, who asked only for big money to build better, wider and longer highways and thus precluded more sensible ways of providing for mass transit, school superintendents pleaded for more money to do better what they were doing. Locked into the problem-solving strategy, the problems they saw were operational ones. Each independent school district, each with its own unique (were not all districts different from each other?) problems, each with an ingrained attitude of reliance upon its own resources, approached its improvement as a series of operational problems to be solved and, thus, decisions to be made. Indeed, one had only to look to find that all sorts of operational things were not working well, and solutions, manifestly, were almost always more of something – buildings, facilities, teachers, services, specialists, good will, administrative aides, equipment, buses, etc. For such as these money was the means; more meant better and more cost new money. And, the truth is that a lot of educational improvement happened just that way. But it was not enough.

4.

Consider now the logic of the local school superintendent's posture as the improver of education. What are his resources and his limitations? Given these, what is his operating strategy?

These are quickly told. For resources he has the literature composed by academics and researchers,[8] himself and his professional staff, and the experience of other school districts; he may have enough good will in the community to be a change pioneer or an early follower, so he may do some experimenting, if his professional staff is likewise willing, and he may be somewhat less strapped for money than most. He has book publishers and other vendors. He has the universities.

His limitations are more imposing. There are few who devote their energies to inventing and developing *products* of proved educational worth for him, but some new *ideas* come from academics and from other school districts. He has virtually no resources of his own to apply to development of ideas or to experimentation in any controlled evaluative way, but he may have some teachers and others who are willing to try out new ideas. Mostly, he has to depend on the people and resources of his own organization, but he has no special invention and development suborganization or specially allocated budget. The state helps almost not at all, except to bless the "new" ideas he has already adopted. And, his community and his board have strong conservative elements – and so does his professional staff – who are not all that eager to be changing, and who counsel, rather, that efforts be put into doing the regular things better.

His enduring administrative strategy is to depend on his problem-solving competencies, his and those of his staff as they consult with him. Of problems there is no lack, and if he can find an innovative practice which promises to solve or even alleviate one, he does his best to adopt it. There might be all sorts of impediments to adoption, and these are, in turn, problems he has to solve. But, by any measure, he is largely on his own, in charge of an independent organization with its own constellation of problems, the solutions for which are expected to come from him or from something he does about them.

Such a strategy might be called an operating or problem-solving strategy to distinguish it from a planning strategy, which, as we shall see, starts from other assumptions and is made possible by other conditions.

5.

There is a view of the world for which this sort of every-man-for-himself change process has an emotional attraction. For those who

subscribe, the process exemplifies an enormous vitality in its participants, and its effectiveness is dependable because of the power of human experience and creative resourcefulness. It is a testimony of humanity at its best, working and coping, solving problems, making progress toward the better life. For these qualities, the process transcends the measure of quality of the individual innovative solutions it yields; nothing else is quite as remarkable and as much worth cherishing as the individual human being's struggle to achieve his human potential. Besides, there is a practical benefit inherent in relying upon human resourcefulness in each local organization, because one's own ideas suit better and are more readily adopted and used.

A view which attributes splendid qualities to singular, independent man is hard to oppose; it is so altogether American, echoing the frontier, the Horatio Alger tradition and, more seriously, the free enterprise principle. But it is opposed. The frontier is long gone (the physical one, not the ones of the spirit) and free enterprise has long since put its faith in enlightened, organized research and development. More specifically, the decentralized and individualized invention-experiment-adoption change process is amateurish. The teachers and administrators on whom it depends characteristically lack scholarly credentials in the substantive fields of study, in child psychology, in learning theory, in evaluation methodology, in technological applications – in anything, really, except pedagogy and management. The result can only be that their change ideas and inventions are highly unlikely to be anything but minor and superficial, even if they had more money. Indeed, school personnel who exceed the limits of their expertise may well go beyond the bounds their integrity can insure.

An objective, realistic understanding of both these views would surely conclude that both are true, that the correct view is not some middle ground between them. The contextual variables make the difference.

Even as late as the forties and fifties there were two strong contextual forces which virtually precluded any educational change process that did not rely almost entirely upon the resourcefulness of local practitioners. There was, for one, the still presumed ideal of local educational self-sufficiency as a necessary corollary to the political home rule principle. For another, there was no research establishment, no institutionalized, dependable source of knowledge and invention which systematically extended the competency of educators. In effect, the change process was restricted to the best alternatives available, which, in fact, was problem-solving resourcefulness in local settings. To make these restrictions insuperable, no local school organization could afford, had it even wanted to, a research capability of its own. The few local bureaus which went by the name were information-gathering or testing agencies.

A better case can be made for dissatisfaction than for necessity as the stimulus to find a better way to cope with the administrator's responsibility for improving the work of the schools, though perhaps they are aspects of the same emotional set. The fact is, though, that the charge of complacency against school administrators so frequently leveled during the post-World War II years was a false, unfair one. Among superintendents, dissatisfactions were rife; no one knew better than they how many of the inadequacies they saw and felt in their schools were beyond their best efforts.

The natural move was to reach out toward research. By 1953 the U.S. Office of Education was greatly expanding its role in subsidizing educational research. The principle involved was not new; actually, it was only an acting upon the proofs of value which research had already given in the war effort and in the operations of business. The "hard" sciences had been on a glory ride for years using research as the vehicle, and no one could have been unpersuaded that there was a universe of new knowledge in education out there waiting to be discovered.

The administrators' faith in those days of the fifties was that new knowledge through research and new money, hopefully through Federal subvention, would together permit them to revitalize the schools. And, in the best of all worlds, the remedies would in no way weaken the status of local home rule nor contravene reliance upon resourceful self-sufficiency.

6.

In the meantime, others who had never before shown much concern for public schools began now to show an interest. Indeed, the subject of educational change became in the fifties and sixties an academic growth industry of proportions unbelievable to anyone whose experience extended back to Paul Mort and his students; they had labored almost alone.[9] Rediscovered a decade later, the subject of educational change inspired a veritable deluge of books, monographs, articles and reports.[10]

Like Mark Twain's candidate for tar-and-feathers, the honor to the superintendent of schools in all this new attention would have been flattering were it not for the discomfort involved. The new scholars, not any more just education academics but scholars in other disciplines, too, found the public schools grievously stable, to the point of rigidity. Speaking in restrained, modulated tones, there could still be no doubt how distressed the new scholar-critics were by the signs of encrusted bureaucracy, at the lack of well-directed leadership, at the apathy and the declining educational powers of teachers, etc. They were so persuasive that a great many superintendents guiltily agreed, and duly

bought the remedial services which some of these academics were able to provide. Experts in group process, group dynamics, human relations, change agents by whatever designations, they were leadership specialists and communication specialists, holding the credentials necessary to freeing up the organization. That was, they said, what was so patently needed.

Though there is no way the new literature on change can be summarized here, one book, probably as well as any, represents the gist, the thrust, of it. Its senior author, Ronald Lippitt, is as prestigious as any, its dedication is to Kurt Lewin and the National Training Laboratory is its inspiration. The title is *The Dynamics of Planned Change*, and its other authors are Jeanne Watson and Bruce Westley. Though the book itself may well have escaped reading by many school administrators, few managed to escape talk of its analysis of their troubles and the prescription it offered.

By definition limited to those instances when an organization makes "a deliberate effort to improve the system" and obtains "the help of an outside agent in making this improvement,"[12] *planned change*, in Lippitt's view, is no job for amateurs. The other kinds of change Lippitt recognizes – "spontaneous, developmental changes within the system or fortuitous, unplanned changes outside the system" can be handled by almost anyone. *Planned change* requires an outside agent; in the National Training Laboratory's lexicon, a "change agent." The book is a comprehensive examination of the relationships between change agents and organizations.

The essence of Lippitt's theorizing derives from Lewin and is expressed in the "five general phases of change process:"[13]

1. Development of a need for change ("unfreezing").
2. Establishment of a change relationship.
3. Working toward change ("moving").
   a. the clarification or diagnosis of the client system's problem.
   b. the examination of alternative routes and goals; establishing goals and intentions of action.
   c. the transformation of intentions into actual change efforts.
4. Generalization and stabilization of change ("freezing").
5. Achieving a terminal relationship.

Just the listing is enough to confirm that the approach is straight problem-solving, though expressed in special language. For example, in elucidating phase 1, Lippitt says, "Before a process of planned change

can begin, these difficulties usually must be translated into actual 'problem awareness'." Those who know the NTL approach will recognize that the change agent's methodology is the range of human relations-group dynamics techniques. What is also clear is the fundamental assumption in the book: that there are change alternatives which specialists – change agents – know or can find.

7.

Sadly, neither the greatly expanded project research in education funded by USOE's Cooperative Research Program nor the work of Lippitt and other such "process" specialists did very much that was notable in improving schools, though they undeniably raised the level of consciousness about the urgency for school improvement. No indictment attaches to the flood of research work output in characterizing it as fragmented and micro-analytical. That was its point and it surely had its value. The trouble simply was that schools did not much improve because of these efforts; that much was clear. The conclusion most widely drawn, then, was that, somehow, what researchers and scholars were learning was not being translated into school system action.

The American Educational Research Association (AERA), the professional association of educational researchers, has long had a committee concerned with the "utilization of knowledge." Its members, more than most, have grappled with the phenomena of use, the ultimate term of translating knowledge. A member of the Committee, and a disciple of Lippitt, Ronald G. Havelock, has recently published two volumes – *A Guide to Innovation*[13] and *Planning for Innovation*[14] – which carry forward Lippitt's theorizing into a realm considered to be more "practical," in the sense, at least, that the focus is on more generally translating knowledge into utilization. The organization at the University of Michigan for which Havelock works is called Center for Research on the Utilization of Scientific Knowledge (CRUSK).

Havelock's work is worth some analysis here for several reasons. Perhaps the most obvious reason is that he has thought through a way of relating research to use which attempts some creative approaches, and thus may be at least a conceptual step toward the answer to a vexing question. Havelock's work is also very intriguing for its articulation of a researcher's point of view, especially since there is a fair amount of evidence that his knowledge of public school administration and operation is limited. In any case, his work has enough currency to warrant serious attention.

Havelock calls his general conceptualization a "linkage model," and

intends it to incorporate the essences of such change process subjects as research, development and diffusion, social interaction and problem-solving, at least as Havelock describes them. The linkage model postulates the existence of two worlds, the knowledge world and the user world. One world is inhabited by researchers and certain allied others and the user world is, primarily, teachers, though, certainly, other educators live there too. What is necessary, Havelock says, is that these two worlds be linked. All of which sounds simple enough, and even undeniable, if the basic assumption is correct.

Havelock, who also has a sense of mission about an emerging "science of knowledge utilization," has a thorough familiarity with studies which are in any way germane to the "diffusion and utilization" (D and U) of knowledge, as his volumes and bibliography show, but there is regrettably, little evidence that he knows at all well the other world, the users (schools). He seems, like many another, to have assumed that he has an adequate understanding of the schools; in any case, it is plain that their posture he sees as mostly passive. If they move in response to knowledge they must be moved by change agents, whose work in the matter of change is, in fact, decisive.[15]

In reading Havelock one must be very careful to compare the vacabulary of scholarly exposition with the implications of the many practical illustrations he gives. The inferences one draws from the illustrations of practice are more informative than the straight exposition. They are also frequently quite different from each other.

Some idea of the verisimilitude of Havelock's view of the school may be gleaned from the following paragraph:

> We begin this study of dissemination and utilization by considering a typical knowledge user. Dave Robbins is a high school science teacher who is trying to teach physics in a new way this year. Dave is a *practitioner* in a profession with a clearly defined mission. He provides a service to a population of *consumers* called "students." He is both a *receiver* of knowledge (from his culture) and a *disseminator* of knowledge (to his students). These two roles, receiver and disseminator, are both routinely filled by Dave in his day-to-day activities. But from our perspective in this report we are not so much concerned with these routine aspects of Dave's occupation; rather, we are looking at him now primarily because at this particular point in time, Dave may be about to become an *innovator* in the act of innovation. He has decided to change and hopefully to improve his way of doing things by reaching out for something *new*. In this report we will try to learn as much as we can about Dave's situation. We are going to take a look *inside* Dave to see *why* he was motivated to change, *how* he made his decision, *what* inhibited or facilitated his thinking about change, and *what* kinds of creative processes were at work within him.[16]

The paragraph is quoted in full, italics and all, because the nature of what appears to be Havelock's most basic error is exemplified in its simplest form. He is still reading the school as a group of teachers who function as individually independent schoolmasters. The error is not, then, just oversimplification of role – and thus change process – but of minimizing, even obviating, the organization's role as an organization. More than an overstressing of microanalytical conceptualization is involved. The fact is that Havelock actually believes that schools can continue to behave in this way in the contemporary world. It is this error which, it seems, leads Havelock to concentrate his model on problem-solving and change agentry, both now largely overtaken by events. The linkage model may well have fit the world of 1960, but it has been all but superseded in 1973. Of course, there is still a lot of 1960 left in some of the public school world of 1973, but the direction of development has been established.

Throughout his analysis, Havelock uses a "Dave Robbins" as the focus, the user, who must "interact" with the resources of the outside world – the "resource systems" – so as to achieve "the need reduction" which motivates him to change.[17] Dave is, always, a problem-solver.

But Havelock is inevitably led to recognize the organization of which Dave is a part. Again, a quotation is best for communicating Havelock's view, but his conception of an organization (and this is his first definitional statement about organization) would seem, at least, idiosyncratic to educational administrators:

> As a social system develops stable routines and forms for regulating its functioning, it begins to deserve the designation *"organization"*. In this hardening or solidifying process certain structural features of social systems begin to come into prominence. These structures are standardized and routinized patterns of relationships among roles; they may be viewed as separate but overlaping subsystems which perform important functions for the organization as a whole. Since these structures profoundly affect the flow of knowledge into, through, and out of organizations, they will be considered in some detail in Chapter Six.
>
> The one structure that concerns us most in this review is what will be designated as the *"knowledge flow structure."* This is the sequence of organizational roles and mechanisms through which *knowledge* is processed in an organization from input to output. . . . this will be the structure that will usually be *under consideration* whenever we are discussing organizations in this volume.[18]

Thus, in chapter six, the promise is kept and organizational theory and research are reviewed as they bear on the "knowledge flow structure." For discussing "new" knowledge Havelock uses "input,"

"output" and "throughput," and for the functions of the structure he uses the terms, "creation," "processing," "transmission" and "consumption." The approach allows – though perhaps, considering the odd citation interpretation from March and Simon "allows" may not be quite the right word – for the recitation of what has now become the tiresome list of reasons why educational change is difficult and slow; Havelock calls the list "ten factors related to the inhibition of input." The same old barriers to change are offered: stability, internal social cohesion, local pride, threat to status, etc., etc., except that Havelock sees them as preventing or at least impeding the entry of new knowledge into the organization. Read, in Havelock, "new knowledge" as "change idea;" "innovation" in the more common usage.

Of course, because the list is now tiresome does not of itself invalidate it. Havelock's reiteration of it is noteworthy for its characteristic mis-reading of the real world of what he calls users. Like many others, especially researchers and psychologists, he looks in upon the school organization from the other world; somehow, he has never learned, or perhaps has not so much as tried to look at reality by looking out from the school organization. The point is not that subtle, and it is so important that one wonders how the error could occur.

Organizations, as Havelock does recognize, are absolutely required to maintain a steady state. To put about all the listed inhibitions to change in a sentence, organizations view warily anything from outside (or inside, for that matter) which might threaten that steady state. Viewed from the outside, the organization's posture appears to be unreasonably defensive, and the task for those who wish to disseminate and diffuse their new knowledge is to study how to penetrate the defenses which the organization has set up against the threat to its homeostasis.

The study concludes that there are only two general classes of tactics for breaking through: one is to somehow step up the power of the input transmission so that, in effect, the organization will "have to" admit the message, and the other is to raise the receptivity level within the organization so that it will "hear" messages more clearly. To do the first there is the whole array of disseminaton and diffusion devices, and to do the second there are, variously, the tactics which persuade the organization's personnel to "tune in" to the outside world for help with problems, for which change agents are crucial, as are consciousness-raising techniques, such as sensitivity training, which increase the receptivity level.

Looking in on the school organization from the outside makes educational change appear to be a way of contesting with a reluctant organization and finding the means of influencing it for its own good. No wonder then that Havelock identifies twelve "strategies" for facilitating the "throughput" of "new" (i.e. change) knowledge. These

include, among others less predictable, changes in leadership style with an emphasis on human relations skills, increasing participation of teachers and others and their influence-sharing in the organization and hiring specialists in the linking process.

But if the administrator (or even Havelock's Dave Robbins) looks out from the school organization, he does not see the orderly world of research as Havelock and others similarly persuaded postulate it. Instead of a cornucopia of new knowledge goodies nicely classified according to the school problems they solve, the administrator sees a mass of incomplete, inconsequential and inconclusive work of varying, but largely unknown, degrees of reliability and validity. Now, if he can make his way among these bits and pieces without being victimized by the flashy but worthless baubles, he may find some useful fragment, but only by apparent accident, for there is no hard evidence that the knowledge extenders are working in his behalf. More often than not, excursions into the new knowledge world turn out badly, and in disillusion, sometimes even in pain, the administrator resolves to shape up his organization's defenses against error from the outside and the siren-voices from the consciousness-expanded, sensitized teachers on the inside.

How useful it would be if the knowledge utilization researchers and the psycho-social education changers (together with the sensitivity trainers and group dynamics specialists) made a list of the dangers to school organizations which unwarily allow themselves to be infiltrated by half-baked "new knowledge," untested assumptions, surreal promises, discredited theoretical constructs and trivial innovations. It is altogether remarkable that one never sees entered in these lists of impediments to educational change "prevailing inconsequentiality and ineluctable foolishness of proffered new knowledge."

If the linkage Havelock postulates in his model has not come to pass, it may be partly because sensible school administrators have looked at the world of educational research and recoiled from it in dismay. In part, it may also be that they have perceived that the researchers, in the main, have assumed that they have answers to problems of an institution they have rarely tried to understand.

The derogation in which they hold the schools and school administrators seems to shine through, no matter how soft the words, in the attitudes which Havelock – and he is typical in this – represents in *A Guide to Innovation in Education:* – ". . . our orientation is PROBLEM SOLVING BY AND FOR THE USER THROUGH EFFECTIVE USE OF RESOURCES."

And how will that be done? By change agents, of course.[19]

1. The Change Agent as *Catalyst*

Most of the time most people do not want change; they want to keep things the way they are even when outsiders know that change is required. For that reason some change agents are needed just to overcome this inertia, to prod and pressure the system to be less complacent and to start working on its serious problems. In education today this role is often taken by students, concerned parents, or school board members. They do not necessarily have the answers, but they are dissatisfied with things the way they are. By making their dissatisfaction known and by upsetting the "status quo," they energize the problem-solving process; they get things started.

2. The Change Agent as *Solution Giver*

Many people who want to bring about change have definite ideas about what the change should be; they have solutions and they would like to have others adopt those solutions. However, being an effective solution giver involves more than simply having a solution. You have to know when and how to offer it, and you have to know enough about it to help the client adapt it to his needs.

3. The Change Agent as *Process Helper*

Probably the most important change agent role is that of helper in the processes of problem-solving and innovating. That is what this book is all about. It tells you *how* change comes about in individuals and organizations. Because most clients are not experts on the *"how to"* of change, they can be helped greatly by people who are skilled in the various stages of problem-solving. The process helper can provide valuable assistance in:

(a) showing the client how to recognize and define needs.

(b) showing the client how to diagnose problems and set objectives.

(c) showing the client how to acquire relevant resources.

(d) showing the client how to select or create solutions.

(e) showing the client how to adapt and install solutions.

(f) showing the client how to evaluate solutions to determine if they are satisfying his needs.

And who is a change agent? Why anyone, anyone at all.[20]

Defining Your Own Role

Someone who fills one of these three change agent roles may have any of a number of job titles. In the box below, we try to suggest some of the typical designations which we might find for the change agent in the field of education.

Some Examples of People Who Might Act As Change Agents in Education

Curriculum Coordinators
Directors or Coordinators of Federal Programs
State Department Curriculum Consultants
Regional Laboratory Dissemination Staff
County and Intermediate School District Consultants
Supplementary Center Staff (e.g., those supported by Title III of ESEA: see our case example of "Henry")
Continuing Education and Extension Instructors
Professors in Schools of Education Who Do Field Consulting
Salesmen of Educational Products and Publications
Superintendents and Other Administrators (at least part of the time: see our case example of "Steve")
Teachers (at least part of the time: see our case example of "Mike")
Counselors (at least part of the time)
Board of Education Members (at least part of the time)
Students (at least some of them some of the time: see our case example of "Linda")
Concerned parents and other citizens

Luckily for their job security, "superintendents and other administrators" appear in the not-so exclusive list.

Ultimately, what makes the worlds Havelock posits irreconcilable and non-linkable is that he makes the same mistake as Paul Mort made thirty years before, although Mort had a far stronger fix on the realities of the public schools and school administrators. Havelock presumes a better world of education outside the schools than in them, at least in the sense that the onus for laggardliness is on the school, on the reluctant changers too fearful of risk to solve their problems with solutions already extant.

He can draw a schematic which shows processes called research and development, and still somehow never understand what development means to the administrator rather than only to the researcher. Linkage is, indeed, an insufferable word, because it separates into two worlds what must be unitary, by assuming that it is enough if they are merely connected. And when he entrusts even that connection to a non-responsible, non-accountable, indeterminate "change agent" he proves

how little he values a function no administrator would these days give up any more quickly than his salary: his obligation to be responsible and accountable for improving the work of the organization.

NOTES

1. "Unwitting" probably gives these practitioners the best of it.

2. The Dalamazoo Decision – the free public high school – in 1874 certainly gave the transition from one mode to the other a thrust forward. But signs of the change appear much earlier; in fact, 1837, the date of the first superintendency, may be the best dating, symbolically.

3. This is **Henry J. Parkinson's** phrase, in his *The Imperfect Penacea: American Faith in Education,* **1865-1965, Random House, New York, 1968.**

4. **Brickell, Henry M.,** *Organizing New York State for Educational Change,* **New York State Education Department, 1961.**

5. While no one would claim an exalted status for teachers in any time, perhaps that is all the more reason why the growing control over instructional processes by administrators was so threatening. Being in control behind the classroom's closed door was, when threatened, an especially cherished prerogative of role.

6. Of course trouble is a relative state, and the current trouble is always the worst, because it is immediately threatening. Looking back, but not having been there, seems to prove that the period of expansion of programs and services in the late nineteenth and early twentieth centuries pressured administrators very much and motivated their continuous pleas for money, but had the effect of satisfying public demand for educational opportunity. When the period of great expansion was over, attention was directed more specifically at the quality of schools, at their results. The current desperate troubles date from then.

7. Clearly, this is a fundamental proposition that is being stated, that it was administration, not administrators, which ultimately was incapable of coping with the demands for educational improvement. Whether or not it proves to be persuasive depends upon how the argument appeals as the theme is developed, but some little history will help in establishing perspective.

   The first serious, concerted effort to move the practice of school administration into the higher reaches of scientific professionalism, after it had been established academically in the graduate schools, came midway through the twentieth century. The effort was called *The Cooperative Program in Educational Administration (CPEA).* Eight university centers spending some $5 million Kellogg-Foundation dollars and at least twice as much in contributed time and services labored for about eight years to understand educational administration better.

   A chief need, it came to be agreed, was for a comprehensive "theory of school administration." Many tried their hands at formulating a "theory" or, at least,

at theorizing. But it was not until Daniel Griffiths published his monograph *Administrative Theory* (Appleton-Century-Crofts, New York, 1959) that the effort seemed to have been rewarded. It was short, surprisingly simple to understand for what seemed to be a forbidding subject, comforting in that it confirmed what everyone knew, that decision-making was the essence of administration. And even though Griffiths plainly said, "This is not the time to state a full-blown theory," and disavowed that he was doing so, it was easy for many to assume that it really was a sufficient theory, needing only "work."

The core of Griffiths' conceptualization was that administration was problem-solving, and problem solutions were characteristically cast into decisions, that being the differentiated functional role responsibility which made an administrator an administrator. He thus crystallized an idea whose time was being superseded, as events rapidly following began to demonstrate.

8. Remember that prior to 1953, the amount of research output was miniscule, and that the portions directed specifically to school district application was nearly nil.

9. In 1955 the principal works on adaptability by Paul Mort and his students was finally brought together in *Administration for Adaptability* (Metropolitan School Study Council, New York) by Donald H. Ross, student and colleague of Paul Mort and friend of many of his students. To this day the volume is the only collating of this pioneering phase in the study of educational change.

10. The best extant bibliography, well-annotated, of this considerable literature is **Maguire, Louis M.** *An Annotated Bibliography of the Literature on Change,* **1970, published by Research for Better Schools, Inc., Philadelphia.**

11. **Harcourt, Brace and Co., New York, 1955.**

12. **Lippitt, et. al., p. 10.**

13. Lippitt's use of the word "system" is not in the systems sense. It merely serves as a synonym for the larger organization, he being often concerned with smaller components of it.

14. **Lippitt, et. al., p. 130.**

15. **Lippitt, et. al., p. 131.**

16. **Havelock, Ronald G.,** *A Guide to Innovation in Education,* **Center for Research on Utilization of Scientific Knowledge, Institute for Social Reserach, Ann Arbor, 1970.**

17. **Havelock, Ronald G., et. al.,** *Planning for Innovation,* **CRUSK, ISR, Ann Arbor, 1971.**

18. Havelock's indebtedness to Lippitt's work is always clear.

19. **Havelock,** *Planning,* **p. 2-1.**

20. **Ibid. – .2-11-15.**

chapter seven:

Franklinsburg settles in

1.

The Evening News which had in October 1972 headlined the happy news that Franklinsburg's school troubles were just about over could be forgiven its naivete. Tangible evidence of forthcoming fundamental gains for students was everywhere. A desegregation had come to pass, the junior high schools had been reconstituted into middle schools, primary centers had given the elementary schools a new look, and something new and promising was going on at the highest levels of administration.

Within the RBS staff, however, there lingered a persistent uncertainty about how far the Franklinsburg school organization had come; that could only be known by its capacity to function on its own. Computers and buses had redeployed children. Opposition to integrated education had been just about neutralized. However impressive as accomplishments, they were not sufficient to prove the kind of capability for change both RBS and Franklinsburg envisioned would come into being.

2.

The realization that the role of change agent was not as sensible as it was advertised to be was forming at RBS. An unquestioning belief in rationality, it now appeared, had marked RBS' assumption of the role. A year of mutual activity was dispelling simplistic assumptions for both organizations.

There was, in the summer and early fall of 1970, a lot of role assessment going on at RBS about what it was doing in Franklinsburg. More than a little faith in Lippitt's "planned change" and "change agent" strategy, it was revealed, had been residual in RBS' behavior. All that was needed, the simplicism went, was diagnosis, prescription, acceptance of prescription, development of capability in the schools and then RBS could leave. Had that mind-set not been so, would RBS

have allowed itself to be drawn into doing so much of the work the Franklinsburg administration should have been doing? Not that it was altogether Lippitt's fault; mostly it was RBS'. But it happened because RBS' rational striving after clearly defined goals made the change agent idea easy to exploit. So eager was RBS to clear away the debris of problems which lay in the way of fulfilling Franklinsburg's manifest need that it found itself in a role ambiguity it hardly understood even while it was happening. Still, all of this did not invalidate RBS' purpose, which was to learn all it could about what a school district needed in order to stay ahead of the demands of change for improvement. Learning was going on.

The superintendency team, so sound and logical as an idea for a structural relationship among a small group of school executives who patently need each other's support, did experience difficulty in coming together in Franklinsburg. That rational change had more barriers to realization than might have been expected.

The overriding fact of life for the superintendency team was that it did not have the means for coping with the needs and problems of the organization. RBS had a timetable, a pattern it was following – form the team, teach it requisite skills, etc. – but the reality of the ongoing organization was far more determinative of how the team members perceived and felt than was the timing of RBS' agenda. The time lag between the formation of the superintendency team and its mastering of the competencies, knowledge and attitudes it required was – perhaps inevitably – too long.

But as both Franklinsburg and RBS came to these realizations mutually, though perhaps through different processes and experiences, neither could dismiss the nagging realization that there may not have been enough energies in both staffs and tools combined, to deal effectively with the ongoing problems of the Franklinsburg schools and at the same time to make the transition into a new way of being an organization.

3.

By this time a kind of stubborn insistence on the sense of its priorities was driving RBS. Four things had to be done: (1) the superintendency team had to learn to make budgets properly; (2) position guides and role definitions had to be written; (3) comprehensive planning had to be started; and (4) project management skills and structure had to be learned and installed. Whatever else the superintendency team might complain of about RBS, there was no cause to feel that its potential for learning was being underestimated.

No question that the budget and the budgeting process were not up

to the needs for sound programmatic decisions. Prepared by the board secretary-business manager with minimal input from anyone else, it was cast in the purest of line-item formats. Years of experience with such a budget had logically bred a disregard for its stated line sums, since no credible rationale defended the integrity of the amounts. The budget document's utility as a plan was marginal.

Having already corroborated its awareness that operational problems had to be dealt with reasonably well before the organization could afford the energy to address its needs, RBS scheduled a two-day seminar (the faith in the educational means never faltered!) to find ways to improve the budgeting process. That done reasonably well, then attention could be given to "creating an outline of the 1971-72 budget, which is to have a program structure," the agenda paper said.

And a successful seminar it was in some ways. As RBS was to find continually, the superintendency team was productive and cooperative whenever it was in a learning posture. But whenever RBS put itself in position of expecting initiatives and new ventures from the superintendency team, all did not go as well. Thus, there came a time when RBS in the expecting posture could be discerned through the screen of the teaching agenda. RBS was expecting adherence to the unknown rigors of planning by program when even the simpler tactics of allocations of money by building had not been mastered.

The superintendency team took another tack on the status-threatening issue of the position guides. While it was not as obvious as passive resistance, the attitude surely lacked full cooperativeness. "Redefining and systematizing roles" RBS called the operation. RBS' staff specialists worked patiently and laboriously with more than fifty Franklinsburg administrators helping them to define and describe their jobs as they would be done were they to be done well. So, in time, was that task largely accomplished.

RBS sent the Franklinsburg board a status report on the interim organizational structure. The superintendency team concept, operations, accomplishments and problems were reviewed in generally positive terms; the shortcomings were also discussed. Some consistent directions were restated, as for example:

> The superintendent was to be responsible for supervising the "school system budgetary process and recommendation of budget to the board."
>
> The superintendent was to report and be accountable to both the board and the team.
>
> Each deputy (planning, implementation and business) was to report and be accountable to both the superintendent and the team.
>
> Position guides and relationships among jobs were to be honored.

4.

What with one problem and another it had come to be almost Christmas of 1970 before RBS could get to a prime goal of its strategy in Franklinsburg. From the beginning RBS had known that the school organization would have to be brought to a certain level of managerial competency which would allow it to give an appreciable portion of time and effort to comprehensive planning instead of having to spend all its strength in trying to cope day-to-day. Just when that level would be reached was hard to tell; some problems were always there to be solved. But the structure had been put into order, and the time for a major change in administrative process seemed to be at hand.

The way RBS saw the planning function took some explaining, not only because it was quite different from conventional conceptions, but mostly because school administrators typically had little background or experience in the kind of planning RBS had in mind. When a school administrator said "planning" he was mostly thinking of the arrangements that had to be made to get a decision implemented. He did that all the time, more or less routinely. Beyond routine, he would likely point to his experience with building a school as the instance when the planning function reached its height. In that activity, he would say, once a decision to build had been taken his was the major responsibility for producing the educational specifications from which the architect did his work. Hundreds of details had to be thought through, all based on a quite clear grasp of the building's uses. Throughout the building experience, starting with the appreciation of its need until it was dedicated in ceremonies which demonstrated the community's pride in having it, the chief administrator and his staff had to be thinking ahead. Typically, he would in all honesty be able to claim widespread participation of teachers, board members, citizens and even a few students in the process. Some pride would shine through his description, for to bring to tangibility so grand a manifestation of practicality as a building is a proof of good works growing out of faith.

RBS, of course, had no quarrel with the view that it took a lot of planning to bring a school building into being, except that it did not serve as a paradigm for what it called comprehensive planning.

Most simply stated, RBS' conception divided the planning process into two generic kinds: one was missions planning; the other implementation planning.[1] One was not a substitute for the other; both were required. School organizations which did not employ missions planning strategies, RBS believed, were less able to manage the complexities and risks of change. Indeed, implementation planning such as school administrators continually do remains hopelessly ad hoc as long as it is undisciplined by the prior concepts and judgments of missions

planning. What RBS called comprehensive planning was a total strategy for missions planning and implementation planning.

RBS had no apparent[2] illusions about the installation of comprehensive planning capabilities. Not the least of the difficulties in the way was the incomplete, emergent quality of the comprehensive planning methodology RBS was installing. How could it be tried-and-tested before it had been tried and tested? There were two principal pieces: the missions piece, which was at this stage of development only a systematic means of specifying instructional goals and objectives, and the project management piece, which was a managerial technology for implementing and operating a missions conception of program. Both had been brought to the level of practicability,[3] but they had not yet been totally developed, and their use in Franklinsburg was understood to be experimental. RBS had no doubt, though, of the validity of the experimental pieces, nor of the need that Franklinsburg had for them. What was in some doubt was the superintendency team's commitment to the three-year effort necessary to the adoption (installation and institutionalization) of the strategy. While RBS did not have all the answers, it was (as it had demonstrated to the members of the Franklinsburg team) ready to roll up its sleeves and work in support of them.

5.

The first phase of installing the comprehensive planning system was to select priority program areas (reading, mathematics and social studies were chosen) in which planning groups would come, in time and with training, to produce objectives and performance indicators. Seven planning groups, composed of teachers, were formed. A few principals also participated. Their initial effort was to provide the system's basic means of evaluating the teacher-pupil interactions. Technically, this was to be accomplished by producing a "handbook" of "performance indicators" in each of the selected disciplines. RBS was, of course, heavily involved, and bore the costs of the effort in which a hundred or so teachers and principals worked overtime at hourly fees. The activity was scheduled to proceed through the 1971-72 academic year, including an intensive summer session.

Teachers, especially those who were actually working on the committees, readily accepted the proposition that teaching would be firmly disciplined by the objectives specified by the performance indicator handbooks. Allegations commonly heard about teachers wishing to escape their accountability did not seem to be borne out. Apparently, the appearance of unwillingness is mostly a distrust of the usual simple-minded criteria.[4]

Central office administrators were most heavily involved in the project management phase of installing the planning capability. The purpose of project management was to apply a more rigorous discipline to implementation planning. Its rationale was, simply, that much of the dysfunction, communication inadequacy and lack of coordination so prevalent in large, complex school organizations was due to a lack of systematic and sophisticated implementation means. While the application of project management was initially to special (usually outside funding) projects such as had become common with the advent of ESEA, the concept has considerable potential as a systems approach to other aspects of the total school program.

With job analysis and structure also reasonably well in hand and both phases of the planning capability well begun, the situation at the turn of the year into 1971 gave cause for at least cautious optimism. RBS looked forward to a scheduled seminar with the board, which the superintendency team had proposed, as an opportunity to be firm about some still unresolved issues, among which was the dual position, board secretary-business manager, which persisted despite position guides and good sense. But there were others: the resistance of the new deputy for implementation to some of RBS' initiatives, the slow pace of reform in budgeting, the policy-administration confusions between the board and the superintendency team, and the board's continued use of standing committees.

6.

Much of the progress which had surely been made, and much that appeared to be only a matter of time, had been achieved because the situation had been *in extremis* in 1968, when RBS had been called in. As a very bad situation improves there are those who are less willing to make further changes since pressures are no longer as strong as they once were. The superintendency team had to recommit itself to the effort necessary to pursuing the goals once agreed upon with RBS, or settling back into the normal routines of maintenance.

An internal memorandum of March 7, 1971 written by RBS' chief man in Franklinsburg described a situation in which much that had looked so good only three months earlier no longer did.

From January, when there was, it seemed, honest reason for optimism, to March when things looked so bad, behaviors had changed less than perceptions and estimates of their effects had. Actually, the situation was not as good in January nor as bad in March. What progress was being made was in a spiral so tight it was often all but impossible to tell if the direction were up, though sometimes, when the perspective was clearer, it seemed to be "Excelsior" all the way.

The board seminar, expected to be a time for consolidating gains and making new ones, came in early March, and everyone from the upper echelons of both RBS and Franklinsburg was there. The progress spiral was again very, very tight. Not that the occasion was unpleasant; on the contrary, everything was gentlemanly, lively and charming. Only it did little to support the mutually stated new directions. Surely, some better communication with the board operations had occurred. but nothing specific or overt to improve operations had actually happened.

There was also the continuing effect of the budgeting process. About the middle of April, when the superintendency team met to hear the business manager's recommendations for cutting next year's budget, RBS' man was forced to say that the process was "almost totally worthless." Not only had the budget been made badly in the first place, as though no better way were known, but now cuts were being proposed by line without information about the programs and people that would be affected. But if RBS' man anticipated objection to his criticism from the business manager, he was surprised. It was the other members of the superintendency team who expressed disinterest in the relevant information the business manager was willing to gather.

But most of all, there was the comprehensive planning matter.

Actually, there were these ten elements in the process of getting the performance indicators made and approved:

1. Planning objectives are developed by the district staff.
2. Performance indicators are developed by the district staff.
3. Pre-indicators are administered.
   (a) Teachers who elected to participate administer pre-performance indicators to their students.
   (b) These pre-indicators are scored and then processed; information is returned to individual teachers.
   (c) Teachers complete class lists and send them to the data processing center through their planning coordinators.
4. Post-indicators are administered.
   (a) Approximately six months later, the teachers give post-performance indicators to their students.
   (b) The post-performance indicators are scored and the processed information is returned to the individual teachers and principals.
5. Based on the information received, teachers make recommendations for their curriculum to the planning coordinators, who prepare a list of recommendations for the principal.

6. Each principal prepares a report for his building.
7. The project manager receives building plans for change from the principals and submits a district plan for change to the superintendent.
8. The superintendent reviews the district report with the project manager and the principals, and then prepares and submits a revised school district program plan and budget to the school board.
9. The school board decides on the plan and budget.
10. During the second summer a group of teachers revise the performance indicators through teacher input and expertise.

Those who were involved in the project were enthusiastic about it because it required their most sophisticated professional skills in a cooperative attack on a major educational need. The excitement did not, however, reach as high as the superintendency team. Indeed, the implementation deputy was equating the issue with a number of "curriculum committees" which were engaging in the same old busywork such committees have for decades been doing.

7.

Like most relationships unblessed by the precedents of social sanction, the time for living together for Franklinsburg and RBS, both knew, had to come to an end. By June 1971 the end was in sight, not so much because they no longer needed each other as that their destinies were moving them in other directions. Of course there were strains and tensions between them, but these were dynamic, developmental and no more than the proofs of human imperfection. No organization escapes the limits of its humanity, and two organizations living together must endure the necessity of interdependent limitations.

Neither organization achieved all its objectives, and each had legitimate grievances against the other. Mostly, Franklinsburg's administration, often subconsciously but mainly quite openly, resented the dependency status RBS' activities enforced upon them. They also wanted more time on the meeting agenda for RBS to listen to them. Though much of RBS' justifiable complaint was centered around the lack of initiative and follow-through by the superintendency team, the team's justifiable complaint was directed at an outside organization which preempted opportunities belonging by right to the team. That there was some irrationality in both attitudes is obvious, but neither organization was always able to rise above a situation in which role ambiguity was intrinsic.[5]

The argument might be better made that the team's accomplishments deserved much praise. With help, of course, desegregation had been accomplished so well that favorable national attention had resulted.[6] In general, it could be honestly claimed that few, if any, American school districts had dealt so well with so much change in so short a time.

An impartial observer would likely have said in June 1971 that both organizations had good reason to be grateful to each other. They had both learned more from each other than might have been predicted. Their brief encounter improved them both.

RBS had certainly not accomplished all it set out to achieve, but in perspective it had to be admitted that its expectations were naively too great. That was itself worth learning, but much more importantly, RBS demonstrated that though its processes for managing change in educational organizations were incomplete and as yet unequal to the task, the principles on which they were predicated were apparently sound. To change, it had been corroborated, required an ongoing capability an organization had to have along with its being routinely able to maintain continuing functions by solving operational problems along the way. One was not the flip side of the other, as though the ability to manage change were merely an extension of the ordinary competencies required to keep an organization in a steady state. They were, it was clear in Franklinsburg, organically related competencies, and synergy between them was present when their relationship was wholesome, but they were nonetheless of separate identities.

Enough was learned to be able to describe the reasons why long held views about what Lippitt had called "planned change" were fragmentary and faulty, just as enough had been learned to corroborate that people were never less than quintessential in their effects upon any process in an organization. The other fact was that change is a substance as well as a process, and the quintessential effects of the *content* of change are no less determinative than people are on outcomes in organization.

More was learned, too, but they were mostly incidental and idiosyncratic experiences. How these learnings will come ultimately to enable RBS to do its own work better cannot yet be said for sure, but already the increment has been an immensely valuable one.

Franklinsburg was endowed with a renewed organizational structure from which, in time, renewed capability would develop, as indeed it already had. But it had still a way to go. Hopefully, the effects of all that had happened would be one day visible in the reading scores of Franklinsburg children.

NOTES

1. Missions planning is a phrase not (yet) in general use, but it seems altogether necessary that it will be. The phrase derives, obviously, from systems language. In the systems approach to knowing organizations, a mission is a part of the organization functionally defined. As an example, one might think of the reading mission or the arithmetic mission as identifiable, functional elements of the educational program in the primary grades. The advantages of thinking about program parts functionally are realized if and when the organization *operates* that way. For the most part schools do not now operate that way, of course.

2. There was at RBS a self-concious hard-headedness about the resistance its comprehensive planning strategy would engender, and no one would say otherwise. But deep down the feeling was that the rationality of the strategy would be so strong as to minimize opposition, given only a chance for the strategy to be displayed.

3. The confidence RBS had in its approaches was based on more than feeling. In two other school organizations, one where the performance indicators had been field tested and the other where project management had been tried, the results had been outstanding.

4. RBS never avoided the word "accountability." Nor did the teachers flinch, either.

5. One of the convictions, incidental but very useful, that grew out of RBS' experience in Franklinsburg was that nurturance – the process by which a product developer aids an adopting school organization to install the institutionalize the product – deserved intensive study. No assumptions about gratitude or even acceptance could be safely made, as though rationality itself were enough. Civilization has not come so far that the outsider is less than suspect.

6. Articles in *McCalls* and *The New York Times* among others and wire service accounts of the superintendent's testimony to the U.S. Senate Select Committee on Equal Educational Opportunity spread the fame of Franklinsburg's desegregation through busing.

chapter eight:

The congruency model

1.

In the time since ESEA's Title IV became operational – some months into 1966[1] – its effects upon educational research and researchers have not yet been generally assimilated, perhaps not yet understood by some who are likely to be the most affected. No Toffleresque extrapolation is required to suggest that some accommodation among those most concerned in the change which Title IV made in the process of educational change will have to occur, if its advantages are to be achieved without hurt.

2.

The difference between "research" and "research, development and diffusion" is a primary distinction in functional role. The R-D&D role grows out of a conception of what is an appropriate strategy of using research method for the improvement of schools, and the research role is bound to the discipline of knowledge acquisition.[2]

In the modern era, except for the plea for money, no wail has been more heartfelt among educational practitioners than their complaint about the uselessness of educational research. The answering refrain of the researchers consistently assailed administrators and teachers for being too passive, not to say intellectually unable, to profit from the knowledge researchers were acquiring and communicating.[3] Bitterness and worse divided educational researchers and educators far more than their presumed common purpose drew them together.

Of course the conflict was as futile as it was inevitable. Their divergent premises were irreconcilable, though there were some times when each furnished aid to the other. Reasonable people do not, if they can help it, wish to be estranged from potential friends and benefactors, so rapprochements between the adversaries could be arranged by intermediaries – usually professors – who had some standing in both camps. Thus some research improved practice and some practice had its effect on the validity of some research. Still, their premises were irreconcilable.

The researcher, free, independent and devoted to his discipline, seeks knowledge in the expectation that he and his colleagues, past, contemporary and future, will accrete the bases of understanding reality more fully and correctly. Understanding, to be sure, could increase one's power to cope as well, but the researcher is not an inventor or a maker of new products, except occasionally and then only incidentally. His functional role is singularly directed at knowledge acquisition and increasing levels of understanding.

Practitioners, in their functional role, seek answers to their problems. Their search is for information that bears on their practice, not knowledge for its own sake. Their attitude does not depreciate knowledge, but they are impatient with the claim that the discovery of facts is anything more than unfinished academic business, unless it can be put to use. Practitioners do not doubt the need for and validity of such unfinished academic business, but they do deny its utility for them.

Applied research – a tradition which includes the tinkerer, the inventor and the prototype product developer and producer – is the response the researcher makes to the practitioner when he wishes to and can, which has not until recently been the case in education. That failure of response has not been the intransigence of researchers. The researcher has had neither the resources in funds nor organization to apply his knowledge to the practitioner's uses; but, then, he did not perceive the urgency of doing so, either.

The old belief in the inventiveness, resourcefulness and creativity of practitioners was a common faith researchers also shared, and it was on that basis that researchers felt so justified in castigating practitioners for not translating new knowledge into new practice. In effect, researchers were delegating application to practitioners, confident that it was appropriate to do so, and they did not wish to accept responsibility for a function not theirs.

For all its bitterness the researcher-practitioner conflict in education has had a tempest-in-a-teapot quality, for the amount of professional, basic research done before 1953 was small. Even after 1953, when the USOE's cooperative research program increased funds severalfold, the money still went to individual researchers each doing their own "projects" or "studies." They were still in no position to be doing invention and development work and, of course, neither were the practitioners.

3.

Title IV at length provided the means for applying research knowledge to the invention, development and production of new

educational practice, so that the conflict between the researcher and the practitioner has had much provocation lately. But a new conflict is incipient, now that the Title IV agencies are demonstrating that their successful experience may, de facto, threaten the traditional political principle of local home rule.

While it is not altogether clear from "official" accounts, it is probably true that the designers of Title IV had a vision of an R-D&D system doing its work side by side with the system of schools, but carefully keeping independent of that vast establishment. To be captured by the schools would, as the planners must have seen it, doom the research centers and especially the laboratories to the treadmill of local school system problems.

Wisely, it has turned out, the centers and laboratories have been able to be friendly with the schools but independent of them, during the period in which they consolidated their organizations. Now that the centers and the laboratories exist and have, indeed, helped numbers of other applied research organizations and projects supported by foundation and private funds to exist also, there has come to be an education R-D&D system in the United States. How that emergent system shall be permanently related to the schools must become an urgent policy condition. Those who propose to deal with the question by linkage[4] seem to be seriously underestimating – perhaps even misunderstanding – the gravity and potentially dislocative consequences which are inevitably involved.

Believing this to be the case, another model for the relationship between the emerging R-D&D network and the schools – *the congruency model* – is offered:

4.

The *congruency model* assumes that:

The emergence of an R-D&D strategy has fundamentally altered the relationships between the estates of researchers and school administrators.

Two primary characteristics of the new research organizations are: (1) the R-D&D agencies are committed to the mission of producing "certified"[5] educational products and are being maintained for the sole purpose of providing new practice for improving the schools; (2) the work-concept of the new product-developing agencies is to address educational needs broadly rather than the operational problems of the schools specifically.

The R-D&D organizations, especially as they are financially supported, according to national policy, for research and development beyond any level possible for such purpose for school organizations, will exert increasingly greater influence on school practice, despite the independence of school organizations.

Increasingly successful R-D&D agencies threaten operational principles both educational and political that defend the *historic* democratic *freedoms in the conduct of school government* in the United States. The threat is intrinsic because the work-concept of the R-D&D agencies, addressing educational needs, invokes value structure, and in turn the products adopted by the schools will define educational goal structures. Ultimately, the character of the schools is determined by the values and the goal structures to which they are dedicated.

A fundamental displacement of the central power of local school government – the responsibility for making educational policy – will occur, if the relationship between the product-producing agencies and school organizations is left to ad hoc change agentry.

Independent school organizations may reasonably be expected to wish to prevent a de facto displacement of their right to make goal choices, but nevertheless to wish to use the better educational products becoming available. Thus, three objectionable alternatives present themselves:[6]

The quality of the new educational products will exert irresistible influence and will be adopted by schools, so that the product-producing agencies will, in fact, be determining the goal structure of the schools, thus reducing the local school district's political and educational responsibility and accountability.

School administrators, school boards and teachers will become alarmed by the threat to their political and professional integrity and will resist the adoption of valuable new educational products.

A conflict confrontation between school organizations and R-D&D agencies will occur and, under stress, school organizations will be led to strive unavailingly to create their own R&D capabilities.

A systems analysis of the functional role of the R-D&D agencies demonstrates a need for a structural relationship between that enterprise and the schools.

A number of structures are possible, but two of the possibilities are strongly contra-indicated: (1) the present ad hoc arrangement in which the non-accountable "change-agent" is the key means of "linkage" is undependable and poses unacceptable risks to the educational and political integrity of schools; (2) a "tight" structure allowing the possibility of Federal controls over school policy decisions is contrary to long-standing national policy.

Within these parameters a "free" structural relationship based on common purpose and complementary functions is possible and necessary between the R-D&D network of agencies and the schools.

Therefore: It is proposed that the principle of congruency of purpose and goal between the Federally-supported R-D&D agencies and the schools be observed by providing structural means for the consultative influence of the school enterprise upon the principal decisioning of the R-D&D agencies.

Congruency in the matter of organizational integrity specifically implies no more than consultative participation – that is, the right of those most affected by a decision to be influential in the process by which it is made – and, specifically, bars any element of control by the schools over any decisions of the R-D&D agencies.

Congruency based on the principle of a defined structural means of consultation does imply that there should be advantages to the R-D&D agencies – in decisioning, in field test and evaluation, in dissemination, in diffusion – as well as to the schools; that there be realized a mutuality of advantage as well as a reduction of the risks of unpredictability and threat to the integrity of educational and political principles.

Congruency based less on the "delivery strategies" of the R-D&D agencies than on the premise that school organizations will see the need for and be able to make a response to their own change capability. Perhaps the most essential element of the congruency model is that school organizations will, to an increasing degree, systematically define their needs, examine alternatives, and select, adapt and implement classroom changes.

5.

The anatomy of educational R-D&D, as it has been developing in the Title IV centers and laboratories since 1966, is not as familiar to educators as it deserves to be. Simplified a little, the following describes its main features:

In the beginning there is either knowledge or a perception of need, or both, for knowledge (the output of basic research) often is the enabling means of perceiving need. For descriptive purposes, though, it is best to begin with *research*, by which is specifically meant a basic effort to come into possession of knowledge about some aspect of reality and, further, to gain from that knowledge, in combination with what is already known and can be hypothesized, some increased understanding of that aspect of reality.

Though some basic research is, so to speak, "pure" because it has no motive beyond knowledge acquisition, some basic research is informed by a sense of intended application. In the R-D&D process such research forms part of what is called the "knowledge base." (Other elements of that base are the total literature in the relevant fields, including opinion, judgment, hypothesis and experience.)

Working from the knowledge base, broadly defined, the laboratory (product-developing organization)[7] identifies as precisely as it can a need worthy of its efforts. Obviously, producing the knowledge base and identifying need are closely related. In practice, defining an area of need precedes work on the knowledge base, so some at least tentative

commitment to work in an area has to be made early. If all goes well, the specific need will be addressed by an *invention.*

Invention is not easy to characterize definitively, because it may legitimately be in the form of an idea, a working model or something in between. (Indeed, in some cases, the invention may be part of the work-output of basic research; that is, the new knowledge may, in part, be demonstrated in the form of an invention.) If the invention is simple enough, it may immediately be offered for use, but, if so, the R&D agency is hardly likely to be involved. Its provinces are those inventions which require development.

Development is, of course, only a synonym for work, in this case the work necessary to bring an invention to the level of a product. So much can be, and typically is, expressed by the word that no reliable generalization can be ventured. Experience has demonstrated that millions of dollars, years of time, scores of workers and all sorts of activities typically constitute the practice of product development.

Logically, the next element of the R-D&D process is *field test,* but it need hardly be said that during the period of development the possibility of going back to invention or research is strong. Some even prefer to think of field test and its following phase, evaluation, as parts of development. The rubric may not matter much, but the purpose of field test is to determine the "product probability" of the invention and its process of development. In practice, field test is applied both early and late, and in-between as well. Utility is what is looked for, and certification is its proof. Evaluation, the next phase of the process, almost always requires field test data.

Evaluation is, in a sense, a part of every aspect of the R-D&D process, but in the formal sense, it is the time when, with enough data and disciplined procedures, a judgment is made about the worth of the effort. A go-no go decision is made, in the formal sense, on the basis of evaluation. Of course, evaluation also yields diagnostic information, and, in that sense, is a guide to the work of development. In practice, evaluation, for one purpose or another, occurs so frequently and at so many points along the way that it may most usefully be thought of as being continuous. Finally, evaluation is the basis for certifying the product which eventuates from the process.

At some point, the development, field test and evaluation phases may be said to have been completed, and the laboratory is ready to disseminate information about its product. *Dissemination,* as is the case with evaluation, occurs more or less continuously from the beginning, in the sense that it is in the interest of the laboratory to have others know about what it is doing. Partly it is a kind of advertising, building a "market" for its eventual product. But more important in the early stages is the request for help that is implicit in telling others about what they also may value and so offer help of one kind or another, as, for

example, in enlisting field-test cooperation. Still, in the formal sense, dissemination activities are undertaken as a preliminary and a means of diffusing the adoption of the product.

Diffusion is adoption seen as the producer sees it. A product has been made, perhaps in prototype, perhaps in replicable units, in whatever form, and is ready to be used in the real world. In the R-D&D process the typical expectation is that the product is now complete, requiring no adaptations by its users; its certification presumably depends on using it as developed. In practice, experience had demonstrated, major new products require an additional involvement of the producing agency with the adopting organization. Adoption seems very often to require an activity called installation and another called institutionalization, two definable parts of a total activity during which the new product is integrated with the on-going elements of the adopting organization. When major change-products are adopted the effects tend to ripple out to administrative structure, roles, status, scheduling, retraining, and the like, as well as to raise new questions of philosophy, purpose and goal. No matter the enthusiasm for a change, any change may be dislocative and may fail because it is dislocative rather than for substantive causes.

Thus, the laboratories are accepting another phase of the R-D&D process which might be called *nurturance,* though a more euphemistic word might be found, despite the precision of this one. In its use here, nurturance means simply that the laboratory which produces a new product and has it adopted must be prepared to provide such help as is likely to be required to adopt the product successfully. Just what that help is escapes generalization because products are so different and the adoption problems they may pose are so varied, but case by case there are almost self-evident situations. One product, thus, may require the laboratory to provide a personnel training facility, another may require that salesmen be trained as troubleshooters, a third may require that the ancillary use of a computer be provided for.

Research, invention, development, field test, evaluation, dissemination, diffusion, nurturance are only names of recognizable activities which occur, basically in this progression, in the R-D&D process. The output is a product. But it must be clear that this is one of those "for purposes of analysis" abstractions. Actually, the progression is not nearly so neat; almost all the phases often seem to be going on simultaneously, because every phase can and usually is repeated, often several times.

Most important, the emphasis in the process is on product, not just an idea, for a new practice.

The lack of an example from education so well reported as the one from medicine which follows is, hopefully, temporary. But the example cited here is altogether relevant:[8]

The Heart Pacemaker

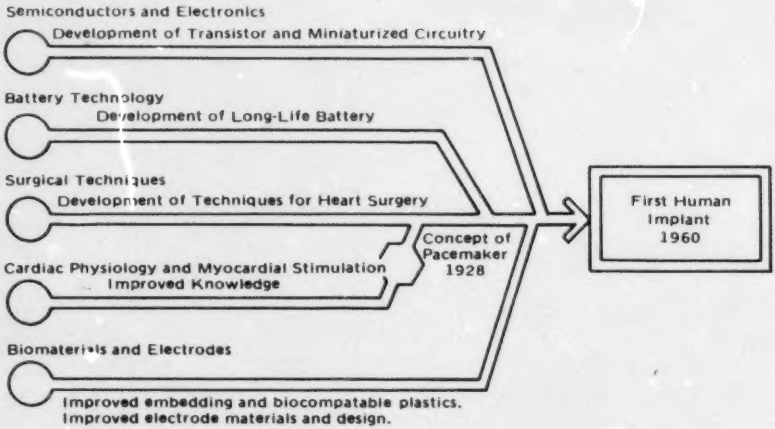
The totally implanted cardiac pacemaker is used for treatment of patients with heart-block disorders. The device is an electronic pulser, complete with pertinent electronic circuitry, battery power source, and electrode system, encapsulated in a biocompatible package. The commercial product represents a remarkable example of the confluence of several sciences and technologies upon which its success depends. Included are low-power miniature electronics, sealed long-life batteries, surgical techniques, biomaterials, and cardiac physiology.

Some precursor events occurred well before the 20th century. For example, in the field of cardiac physiology, electrical stimulation of muscle was first observed by Galvani, in 1790. The symptoms of the primary disorder treatable with the pacemaker (now known as the Stokes-Adams syndrome) were described in 1824. Electrical stimulation of the heart was proposed in 1862. In 1836, the term "heart block" was introduced to describe blockage of the synchronous rhythmic contraction of the chambers of the heart. The conduction tissue (the "bundle of His") that transmits the synchronizing impulse between chambers was described in 1893.

Other work, particularly on intracardiac therapy and on surgical techniques, continued through the 1920's, but the first conception of the idea of periodic electrical stimulation of the heart was propounded in 1928 by A.S. Hyman, director of the Witkin Foundation for the Study and Prevention of Heart Disease. In 1930, he applied for a patent on a pacemaker, which incorporated a spring-driven magnetogenerator and needle electrodes, and began to use it successfully, although the spring power limited the useful time period. He failed to gain widespread medical and social acceptance, however, and was even subjected to (unsuccessful) law suits for malpractice. Unable for some time to find a manufacturer to improve and miniaturize his device, he finally reached an agreement with Siemens of Germany, only to have this agreement, and his pacemaker studies, disrupted by World War II. Hyman never returned to work on pacemakers, lacking confidence in his ability to exploit the extraordinary advances in electronics made during the war years. These advances, however, directed toward miniaturization and low power requirements, were to provide the basis for future success in pacemaker technology.

The transistor, the foundation of the new electronics technology, was invented in 1948. Advances in miniaturization and in pulse circuitry came rapidly, utilizing efficiently the low power needs of transistors. Another product of the war effort was a sealed primary battery, the zinc-mercuric oxide alkaline cell, with long life at low current drains. Meanwhile, other contributions to the implantable pacemaker – epoxy for "potting" the electronic components, and biocompatible silicone rubber encapsulation material for long-term implantation – came from the polymer field. Further efforts included a search for electrode materials and systems free from problems of increasing electrode threshold (minimum voltage needed for consistent stimulation) and insulation leakage in contact with body fluids.

Progress toward the goal of the innovation also depended upon advances in surgical techniques. Procedures were developed, for example, for either insertion of the electrodes through a vein into contact with the inner wall or their direct attachment to the heart muscle, and for implantation of the pacemaker device. The extensive work leading to open-heart surgery, and the complications which occasionally arise (in the form of temporary heart block due to surgical trauma) led to the development of temporary pacing techniques. Open-heart surgery received considerable publicity, and the corresponding dramatic successes had a strong influence on widespread acceptance of this technique and, therefore, on the use of



stimulating electrodes in control of temporary heart block. Certain religious and moral questions concerning the inviolability of the heart were sufficiently resolved to permit use of the pacemaker.

Successful clinical application of an external pacemaker for treatment of complete heart block was announced in 1952. With further improvements and external, rather than needle, electrodes, longer term use (up to one week) was reported. However, the technique required high voltage for external pacing, with attendant pain of muscular contraction and possible burns; consequently, interest refocused on direct-stimulation techniques for long-term pacing. By 1958, surgically induced heart block was being treated successfully with directly implanted myocardial electrodes and an external transistorized battery-powered pacemaker. Successful clinical application of a pacing technique using a transvenously inserted catheter electrode to contact the inner wall of the heart was announced. The first fully implantable pacemaker was placed in a human in 1959, but its battery pack required periodic recharging, by induction, and the problem of electrode threshold remained unsolved.

At about this time, Wilson Greatbatch, a biomedical engineer, teamed with Dr. William Chardack, a surgeon, to develop a totally implanted, permanent cardiac pacemaker. Greatbatch applied for a patent on his device in the late 1950's, and he and Chardack tested it successfully in animal experiments. Some difficulty was experienced with electrode threshold, but a new stainless steel electrode system minimized the problem. The first human implant was performed in 1960, marking the successful culmination of the innovation. The device performed well and the patient survived for more than 2 years. Units of this type were marketed in 1961 by Medtronics, whose directors were convinced of the potential market. At that time, however, the need was not universally recognized, and the firm suffered heavy financial losses during the first year. Nevertheless, after that critical period, sales mounted rapidly to a net of $30 million in 1971.

The Medtronic device was of the fixed-rate or asynchronous type, with low power requirements and an expected battery life of up to 5 years. Its success has inspired efforts by numerous investigators and manufacturers to improve the device. For example, an improved pacer stimulates the ventricles in response to atrial contraction. Another concept is that of demand pacing, where the pacer is inactive unless triggered into action by a period of abnormally low heart contraction.

Berkovitz extended this concept and, in 1971, patented his Bifocal® demand pacemaker, which may stimulate the atria, or both atria and ventricles, in accord with a preset interval. Nuclear batteries have been used as power sources in an implanted pacemaker, and solid-state batteries with projected lifetimes of up to 10 years have been suggested. The coupling of microelectronics to a nuclear power source has been proposed, with the objective of eliminating lead problems by producing a device small enough for total containment within the heart chambers, rather than the body cavity.

The Decisive Events. Of the 102 significant events recorded, the following 13 were considered decisive:

- In 1926 the Witkin Foundation for the Study and Prevention of Heart Disease established a special committee to investigate the problem of intracardiac therapy, initiated the first concentrated attack on the problems of resuscitation, and, with A.S. Hyman as Foundation Director, provided the base for evolution of his pacemaker concept.
- L. Condorelli's 1928 report, that the heart beat could be sustained by mechanical stimulation, i.e., thumping the chest, strengthened Hyman's concept of electrical stimulation.
- Hyman's patent application, in 1930, described the first electrical instrument suitable for clinical use in resuscitation.
- Hyman's 1932 publication of his pacemaker experiments caused considerable polarization among advocates and opponents of its use.
- The sealed mercury battery, developed by S. Ruben in 1947, marked the first power source with properties of long life, no gas evolution, and flat discharge characteristics suitable for powering implanted transistorized devices.
- The invention of the transistor by J. Bardeen and W. H. Brattain, in 1948, paved the way for development of miniaturized electronic equipment with low power requirements at low voltages suitable for battery operation.
- The first Biomedical Engineering Group, established by W. Greatbatch in 1952, stimulated interaction of the medical and engineering professions, and was later the source of the association of the two principals jointly involved in developing and implanting the first pacemaker unit.
- The clinical demonstration of external pacing for heart block, by P. M. Zoll, 1952, led to widespread use of electrical stimulation.
- The development of medical-grade silicones by Dow Corning in 1953 provided the necessary biocompatible-encapsulating material.
- In 1955, Lillehei used external pacing to combat heart block resulting from cardiac surgery; he later developed a technique for direct attachment of electrodes to the heart wall.
- Weirich and his associates in 1957, treated A-V block with external pacer and electrodes directly inserted into the heart muscle. A transistorized, battery-powered external pacemaker was later developed by Bakken for their use.
- Hunter and Roth, in 1959, developed a stable electrode system for the implantable pacemaker, which eliminated problems of electrode degradation in service in the body fluid.
- Chardack and Greatbatch, in 1960, developed the first totally implantable heart pacemaker and implanted it successfully into a human patient. This unit was marketed immediately, and the innovative process was completed.

Implications of the Case. A unique feature of this case history is the long time span, 32 years, from concept to first realization, the longest span among the cases studied. The delay caused by World War II and the inhibiting effects of sociomedical rejection of cardiac manipulation do not account for the entire period. Although Hyman clearly recognized the need and knew what he wanted, certain technologies, such as electronics, batteries, and polymers, had not been developed sufficiently. As the needed technologies reached a level of maturity adequate to support the innovative process, their convergence made it possible to develop and market the device in a relatively short time.

Although this innovation was need oriented, the need was not universally recognized until the late 1950's. The long perseverance of the inventor in the face of social resistance, legal harassment, and attack by his colleagues, is well documented; he gave up only because the available technology was inadequate. A. S. Hyman, the inventor, was his own product champion during his time. A second inventor-entrepreneur appeared later. Management decisions were crucial, in the face of adverse market analysis, possible legal ramifications, and inability to obtain product insurance. The initial invention evolved outside the innovative organization. Government financing was of only peripheral significance. Supporting inventions were needed in the course of the innovation. Informal transfer of knowledge played a role.

6.

Great changes affect much of their environment, just as large stones ripple a pool more than small ones. Inevitably, it would seem, the ripples of the change to an R-D&D strategy must significantly affect the practice of school administration, almost surely for the better.

Since the middle fifties, the study of educational administration has, until just recently, been so wholly focused on a problem-solving, decision-making conceptualization of functions as to be almost unable to envision responsibilities which extended beyond what Chester Barnard had called "maintaining the organization." Griffiths'[9] reworking of Barnard's concepts of executive function seemed, as the sixties dawned, to have provided enough theoretical formulation to satisfy both professors and administrators. Although there was a brief spurt of theorizing and model-building, not much theory-building actually happened. In the field, administrators found no reason in the theorizing and model-building to modify their practice very much, except that they became more interested than ever in the group processes – consultation, conflict resolution, human relations exercises, etc. – in the belief that their emerging problems primarily lay in maintaining the inside environment.

But no one thought that all the emerging problems of school administration were of the interior climate, not after the public reaction to Sputnik, the NDEA and the exasperated signs of public dissatisfaction with the schools that marked the early sixties. The pressure for substantive educational change was great and growing.

The terrible weakness of the conceptual work in the discipline of educational administration in the fifties and early sixties, during which time more conceptualization occurred than ever before,[10] was that it did not concern itself with the phenomena of change. Looking back, the error seems nearly inexplicable, given the experience of the last eight years. But at the time, there were at least two excellent reasons for it. The most pervasive reason was, simply, that change was being perceived as no particularly special case; a change was just another problem-solving, decision-making instance. The other reason was that by the early sixties the National Training Laboratory's approach to change – the micro-analytical human relations exercises for improving the internal dynamics of the organization – was widely trusted, probably because administrators were as persuaded as nearly everyone else that if schools were improving at too slow a rate, it had to be the fault of school administrators and teachers.

Of course the demand for change then engulfed school administrators in 1965 and the easy assumptions about knowledge being out there ready for use by the knowledgeable and that change was no different from ordinary problem-solving were disproved, though unfortunately, they were not yet demolished.

The decision made in Washington to move into Federal support for a regionally-dispersed national R-D&D network of agencies was made without much consultation with school administrators. Even after ESEA Title IV was enacted, few local administrators knew much about it, or cared. Their big money was in Titles I and III. Had they been asked, they might well have opposed it, had they known that the R&D agencies would determinedly refuse to involve themselves directly with specific school district's problems.

School superintendents and other administrators had, by 1965, thoroughly assimilated the main message from their discipline's professors, which was that the administrator's job was to solve the problems he had to solve, and to do that in such a way that as many as possible of the people in the organization were involved in some part of the process. No message had gone out saying that fundamental reassessments of social, organizational and educational needs were urgently required, that change processes were not really the same as problem-solving processes and that, in any case, fundamental changes were quite different in both degree and kind from the usual accommodative "steering" changes any helmsman makes.

7.

The needs message – the intelligence report which identifies needs reassessment and consideration of fundamental changes in ways

different from the ordinary as prime responsibilities of school administration – is beginning to gain force and momentum. The burgeoning success of the R-D&D strategy actually allows school administrators no option, in the long-term, but to listen and become involved.

To listen, even to hear, is yet no guarantee of response. How school administrators should or could respond are questions not yet answered except in the abstract. A few largely premature but promising items of technology have appeared – Planning, Programming Budgeting System (PPBS), Program Evaluation and Review Technique (PERT), for example – but the kind of comprehensive integrated products school administrators require in order to become full partners[11] in a congruent R-D&D strategy of educational renewal do not yet exist.

What is known, just about for certain, (though not until the products are successfully used in schools can that be proved) is that the special capability school administrators must have greatly raised in power is planning. What is also known is that systems thinking, the systems approach, is the way of thinking about complex organizations which is most appropriate to planning.

Fifteen years of experience with unprecedented demand for change in the schools, to which school administrators have been mostly receptive, and eight years of growing success in the R-D&D network have been demonstrating that renewal and revitalization – improvement – are as much as maintenance of the organization the school administrator's chief role function. Experience over these years has also proved that change agentry and human relations exercises, undoubtedly useful as they are, do not and cannot replace the substantive judgments from which new programming, new structure and new instructional strategies are adopted and institutionalized.

Call "substantive judgments" planning and the sense of it is revealed. The products administrators urgently require are the means, more effective than any existing ones, for understanding their organization's missions, evaluating the array of alternatives available for addressing them, and the technology of making the implementing decisions necessary to a plan's realization. Whether all of this is "new" or merely raising existing competencies to higher levels is debatable, but pointless. At the least the means of raising the competencies to higher levels requires products for administration which certainly do not yet exist.

Until such products are made and widely used, the school administrator will not yet have become, as he must, a fully-functioning principal in the R-D&D strategy of school improvement.

NOTES

1. Twenty regional laboratories were funded by ESEA Title IV by early 1966, but it naturally took some time for programs to be on-going, and longer to achieve output. The date is thus nominal.

2. If this reference may seem to be questioning the worth of basic research, it is not intended to. Basic research is nothing less than indispensable in any discipline and no amount of applied research replaces the continuous need for basic research. Indeed, the logic of the situation in education argues that the expansion of applied research can be sustained only if basic research is likewise expanded.

3. By this time "communication gap" has become a cliche and a joke. But not so long ago people used the phrase in all seriousness to explain why educational practice seemed not to be profiting from the work of educational researchers. "Research," it was charged, "was gathering dust on the shelves" while educational practice languished, uninformed by what the researchers knew. The allegation was, probably, about 99 44/100% pure nonsense, simply because the *research* was not directed at the improvement of practice. At best – and that requires a massive suspension of disbelief – the research could have supported some *invention* and *development*, but that did not ensue for the lack of an R&D capability.

   What there was available is *news* of practice gathered for dissemination. The gathering process, often including categorization and some synthesis is often called research, too. In the forties and fifties strenuous efforts to do this sort of collating of "best" practice were made and, on the whole, were well disseminated. There should, however, be no confusion between these reports of practice – almost entirely unevaluated, by the way – with basic research.

4. Chapter VI described the linkage model.

5. "Certified" suggests that the products have been tested and evaluated and are offered for use by responsible producing organizations which make legitimate claims for their utility.

6. Though considerably simplified here for brevity and clarity, these alternatives do seem to be the major possibilities.

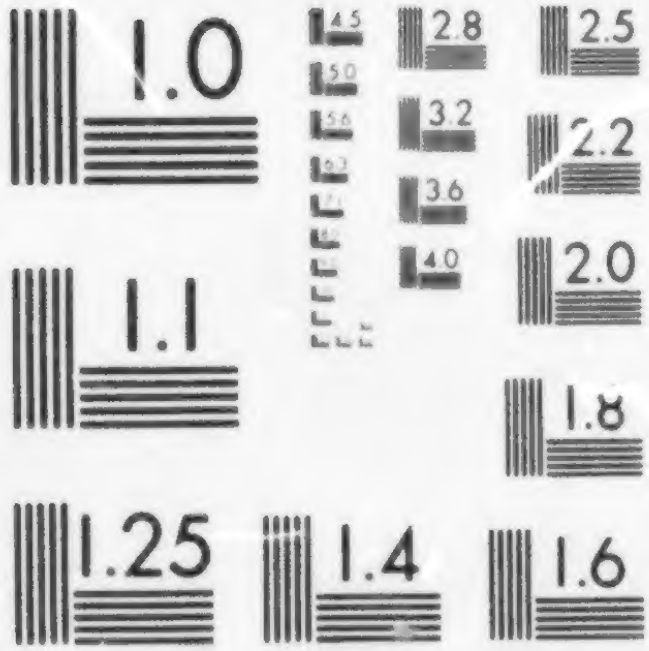
7. Let "laboratory" be used as a shorthand reference for any organization which seeks to produce product prototypes; i.e. curriculum-developing agencies, etc.

8. The abridged report, from which the quotation is taken, is entitled, *Science, Technology and Innovation*, done under contract (NSF-C667) to the National Science Foundation by the Batelle Columbus Laboratories and published February 1973. The principals of the project team for Batelle Columbus were Samuel Globe, Girard W. Levy and Charles M. Schwartz. The title of the full report is the *Interactions of Science and Technology in the Innovative Process: Som Case Studies.* NSF publishes it.

9. **Griffiths, Daniel E.** *Administrative Theory*, **Appleton-Century-Crofts, 1959.**

10. The early fifties were the years in which the Cooperative Program in Educational Administration, among many other activities, supported a five-year effort to conceptualize the superintendent's job.

11. The observation here about congruence between school organizations and the R-D&D network is meant to suggest that school administrators are, in general, not as able as they will be to contribute their best, not that efforts to establish a congruency model should be delayed.



MICROCOPY RESOLUTION TEST CHART
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chapter nine

Administering for change

1.

From its knowledge base[1] in the literature, from its experience in diffusing individualized curricula in the classrooms of hundreds of schools, from experimentation in several school organizations, including Franklinsburg, the Administering for Change Program (ACP) of RBS was ready in 1972 to develop an array of "administrative training packages." Four years of intensive effort had yielded the understandings necessary to confident production of better means of managing the improvement of educational practice. For about a year now, ACP has been writing "packages" of instructional materials for administrators who want to have the means of administrative practice for improving their schools. Moreover, these "administrative training packages" involve school administrators in the acts of development and production. ACP has three essential objectives: (1) to produce administrative training materials which assist a school district to plan and implement programs of educational change; (2) systematically to identify and study the conditions and circumstances which affect the adoption and implementation of classroom innovations; and (3) to determine the utility of various combinations of materials and services which support implementation of classroom innovations

2.

The developmental work began with a narrow, short-range focus using as the experimental setting a network of 55 school districts (about 80 schools) which were then in the throes of adopting and institutionalizing classroom innovations RBS had developed. ACP could, and did, study the problems of implementing change as these schools were meeting them. The obvious advantages of such a "laboratory" of classrooms and schools to study were, however, somewhat offset by their being atypical, if being in the vanguard of change is, in fact, atypical; in any case, it was a special group of schools.

ACP's mission was to develop and produce products for school administrators that would enable them to manage any kind of educational change in any kind of school district organization, to be ready for the new educational products beginning to flow from the R-D&D agencies in a broadening stream. The sketch provided below indicates how ACP saw its transition from the narrow focus to the broader population of school district problems.

	Conceptual/ Theoretical	Testing, Studying, and Concluding
Intra ACP	I	II
Extra ACP	IV	III

The sketch suggests that ACP had to do some conceptual/theoretical work in depicting how the basic functions of administration relate to the processes of change and further that these conceptual underpinnings be tested against the reality of change in schools. *Intra ACP* refers to the narrow focus of the network of school districts. ACP's short-term strategy, then, involved a conceptual approach to the problems of change with data from the schools suggesting the validity or lack of validity of approaches and the conditions that rendered these approaches valid or invalid.

Conceptual/theoretical was given the first priority (I) and field studies the second priority (II). Research findings would then be tested in school districts and schools outside of the network of school districts to assess the degree to which ACP's conclusions had generality. This represented the third priority (III). The degree to which ACP could contribute to the general theory of educational administration, priority IV, would depend upon the success the program would have in generalizing its findings to the general population of school districts.[2]

3.

The assessment of a developmental process is usually made on these general grounds: (1) what does it cost, (2) how long does it take, (3) does it produce an end product that works? An unfortunate aspect of this assessment is that a funding agency cannot know the answer to the third question until the process is completed. As a consequence, it tends to dwell upon cost and time considerations. A more meaningful

alternative to both cost and the time criteria probably is whether it is worth doing because of its potential social contribution.[3]

By September 1973 ACP had assembled a developmental team of specialists in curriculum theory, educational administration, teaching at elementary and secondary levels, economics, statistics, clinical psychology, communications theory, journalism, sociology, research, evaluation, and dramatics. Their experience included, for example, teaching at elementary and secondary levels, principalships, central office administration, state department of education administration, training of astronauts, military systems development, market research, economic research, public health research, industrial sales, and computer customer service.

This team engaged in a disciplined process of R&D. ACP involves school administrators in the research phase by reviewing literature of administration and educational administration, by identifying research findings that indicate needs in the administration of schools, by talking with administrators, teachers, school board members, state department administrators, university professors, and staff from agencies such as NEA, AASA, and ECS, and by observing and participating in administrative practice.[4]

Ideas are formulated and training packages are conceived and written. The content and format of the individual package derive from the overall organizing, planning and implementing concept of the program which comes first, but is also modifiable in process.

Development involves the construction of a prototype. Each prototype is being built to enable administrators to attain needed competencies and understandings that will enable them to cope better with change.

Field trials enable the developer to learn about the prototype packages from the administrator. Field trials are, insofar as practical, conducted in the school district. Applications are made by administrators to on-the-job requirements. Information about the style, clarity of examples, sequence of materials, perceptions of usefulness, and difficulties of application is collected and analyzed in the evaluation phase.

Evaluation also focuses on unintended side effects. There is more to change than competencies and skills; the feelings of people and how they are affected as a result of the guidance and assistance provided by the training packages are also crucial.

As ACP looks at the evaluation of all its packages, it is clear that they must add up to more than the competencies defined by the developer as the prototype was being constructed. There must be a synergy. There must be an unremitting concern for the human effects. By maintaining its relationship with the network school districts, the ACP staff has a special sensitivity to and support from their partners,

administrators and teachers. The likelihood of creating packages with strongly negative unintended effects is exceedingly low because mistakes made early in the developmental process are corrected in the field.

Products are redeveloped and information is sent out to a wider audience of administrators. Before a product is released for widespread diffusion, an independent unit of RBS must certify its integrity. This process, which is out of the control of ACP, is called final formative evaluation. The board of directors of RBS created this independent evaluation unit as an additional safeguard for the schools.

Diffusion is effected through many channels. Most often the channels through which individual training packages are made available to schools are different depending upon the kind of product. Some approaches involve university service bureaus, others use commercial publication, still others may involve agencies such as UCEA, AASA, and ECS. The state departments of education are also very interested in alternative training programs. ACP staff works closely with administrators from many states in an effort to understand how states are changing their activities in response to the needs of schools to introduce new educationl R&D innovations.

4.

ACP has for some years been trying to approximate the potential benefits a congruency relationship with school administrators and teachers would yield, although real systemic congruency cannot be accomplished by one laboratory, however much it honors the judgment of its colleagues in the field. Neither altruism nor the democratic ethos impel the effort, which is costly and time-consuming. Seriously practical considerations forced the strategy. But if it comes to pass that these same considerations should enforce a collegial valuation not unlike that which altruism and the democratic ethos would create, it may be because the necessities of cooperation in a democratic society sometimes make us all behave better.

The need ACP identified almost from the beginning was that the people who did the work of the schools had to have the means of dealing with the phenomena of educational change, and that these means had to be substantively different from the ordinary ad hoc problem-solving methods which may have more or less sufficed when change phenomena were much different and much simpler. The change from the ad hoc to the R-D&D had, ACP recognized, inevitably to demand changes in the way school organizations dealt with change itself. The "recognize-a-problem-and-find-a-solution-for-it" behavior of administrators and teachers was no longer enough to make sense in a world in which sophisticated products for revitalizing and renewing the

whole of the schooling enterprise were becoming available in increasing supply. The postulate which consigned administrators and teachers to operations and organizational maintenance and the problems these spawned was becoming less and less tenable as the comprehensive assumption on which to construct a theory of either administrator or educator role.

As happens, a part of the world had overtaken another part of it, and old assumptions and the strategies they had generated no longer applied because reality was, in fact changing. The change in the process of change is so powerful that it has made a change in the practice of educational administration necessary. So at least did ACP believe.

The commonsense observation that the structure of the school organization would be likely to be the most resistant to change[5] had to be respected. All the virtues of stability are bound up in the everlastingness of the formality of the organization, and so are the status and authority from which the power to command derives, as do nearly all the reward (and punishment) protocols upon which the people in the organization depend for so much of their futures. The structure of the school organization is not a matter to be confronted easily, as though it were just another "variable" to be "improved."

Still, the means necessary to managing schools in a new world of educational change go deep into the nearly sacrosanct arenas of administration's territorial imperative, not only structure, but function too. The means invoke the discipline of systems thinking upon structure and functional relationships among the work-roles, and they raise missions planning to the highest level of the administrator's priority.

5.

At this writing ACP is developing a number of products which will give school administrators and teachers better ways to manage the educational change process in their schools. Far more than has usually been the case in the R&D process, these products have been invented out of a knowledge base to which large numbers of administrators and teachers contributed. The Franklinsburg story told here is only one such experience built into that knowledge base, which took years in the making, and, naturally, included research as well as experience and experimentation. It may be fair to say that no possibly relevant research publication or idea has been overlooked in the search to construct the knowledge base for the inventions which are now being developed and tested. Some ideas have been rejected and some theorizing has been disproved, but a good deal of the contributions of many researchers, writers, administrators and teachers survives in the work of ACP.

All of which is the way it is supposed to be. Seven years into the R-D&D strategy for educational improvement which Title IV made official national policy enough security has accrued to the laboratories to allow them to disclaim omniscience and independence in favor of specialization of function, integrity of role and cooperation based on mutuality of purpose. Independent as they are of the schools and independent as the schools are of them and of other schools, national policy borne on a rising tide of public disaffection for the schools allows neither the schools nor the laboratories to insist on their prerogatives at the expense of their expected outputs. The proofs that the inherent complexity of the educational process, in an environment whose complexity is escalating wildly, that there must be cooperation among the estates which comprise the entirety of its structure are too obvious to be recited. The conceit that there is a knowledge privately held by researchers to whom practitioners must repair when they are troubled by a problem is not only unworthy but unsound. Researchers and practitioners cannot sensibly live in separate worlds tenuously linked from time to time as problems arise. They actually do live in the same world performing different but intrinsically related roles hoping in common to accomplish missions neither could do as well or perhaps at all accomplish alone.

In the practical arts and sciences of schooling experience counts as much as research, if the experience is disciplined by research knowledge and if research applications are disciplined by real world truths. The products for managing educational change in the schools are coming into being on the basis of that conviction. But only their utility in practice will constitute proof.

NOTES

1. The R&D discipline insists on the essential priority of building a knowledge base first.

2. In 1973 ACP is working in areas I and II, above.

3. A continuing problem of assessment of R&D is, of course, what criteria the funding authority shall invoke in making its judgments. Since money for most endeavors is scarcer than demand for it, the programmatic tests of cost and time are easier to apply than the alternative of allowing high risks and high costs for the sake of achieving a difficult goal of commensurately great value. Sometimes it happens otherwise, as when an atomic bomb is to be produced or a man is to be sent to explore a part of the moon. But these are too exceptional to be standard practice.

Still, it must be emphasized that the R-D&D enterprise under USOE auspices first, and now under National Institute of Education (NIE) auspices, has been considered to be a risk-incurring venture. To a considerable degree, the "safe" tests of costs and time have been and are mitigated by considerations of purpose and goal. Naturally, some difference of opinion on the parameters of appropriateness of risk and cost is to be expected between laboratory and NIE, and that makes for a dynamic tension that is mostly wholesome.

4. The Franklinsburg experience was expressly for this purpose.

5. **Henry M. Brickell** in his *Organizing New York State for Educational Change*, 1961, noted that schools tended to adopt innovations that did not require changes in the "existing structural framework."

Bibliography

Bailey and Mosher. *ESEA: The Office of Education Administers a Law.* New York: Syracuse University Press, 1968.

Barnard, Chester I. *The Functions of the Executive.* Cambridge: Harvard University Press, 1938.

Boulding, Kenneth E. *The Organizational Revolution.* Chicago: Quadrangle Books, 1968.

Brickell, Henry M. *Organizing New York State for Educational Change.* New York: New York State Education Department, 1961.

Callahan, Raymond E. *Education and the Cult of Efficiency.* Chicago: University of Chicago Press, 1962.

Churchman. *The Systems Approach.* New York: Delacorte Press, 1968.

Griffiths, Daniel E. *Administrative Theory.* New York: Appleton-Century-Crofts, 1959, p. 101.

Havelock, Ronald G. *A Guide to Innovation in Education.* Ann Arbor: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, 1970.

Havelock, Ronald G. et al. *Planning for Innovation.* Ann Arbor: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, 1970.

Maguire, Louis M. *An Annotated Bibliography of the Literature on Change.* Philadelphia: Research for Better Schools, Inc., 1970.

Mayo, Elton. *The Human Problems of an Industrial Civilization.* Harvard University: Graduate School of Business Administration, 1946.

Mort, Paul R. and Cornell, Francis G. *American Schools in Transition.* New York: Bureau of Publications, Teachers College, Columbia University, 1941.

Parkinson, Henry J. *The Imperfect Panacea: American Faith in Education.* New York: Random House, 1968.

Raywid, Mary Anne. *The Axe-Grinders: Critics of our Public Schools.* New York: Macmillan, 1902.